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MONTHLY REPORT

OF

THE DEPARTMENT OF AGRICULTURE,

FOR

OCTOBER,

1868.

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1868.

MONTHLY REPORT.

WASHINGTON, D. C., *October* 26, 1868.

SIR: I herewith respectfully present for publication a statement of the condition of the crops for October, with tables of averages, and extracts from correspondence; with articles upon the following topics: The Spanish fever; Indian agricultural exhibition; evils of land monopoly; rice and sugar crops in Louisiana; agricultural statistics in Great Britain; sales of sheep in England; European hop crops; meteorology, &c.

J. R. DODGE, *Statistician.*

Hon. HORACE CAPRON,
Commissioner of Agriculture.

CONDITION OF THE CROPS IN OCTOBER.

WHEAT.—The full promise of the early summer has not been realized in the wheat harvest. The increase of area over that of last year, in its effect upon the aggregate production, is nearly neutralized by a small diminution in some of the principal wheat-growing States, in the yield per acre; so that the increase in the total quantity, as shown by our October returns, is scarcely more than three per cent., and that is obtained mainly from the Pacific coast.

The progress of wheat culture westward is somewhat remarkable, and its history is not altogether unlike that of cotton, in its occupancy of new lands, and their desertion after a few years' use, not indeed to grow up in sedge or forest, but to be laid down in grass or employed in a more varied range of production. Not only does it go with population westward, but its movement is in an accelerating ratio, yielding results in bushels to each inhabitant surprising to eastern farmers. Thus has the territory between the Mississippi river and the Pacific ocean, which in 1859 yielded about 25,000,000 of bushels, harvested about 65,000,000; while the country east of the Mississippi, with its accession of population and wide distribution of agricultural implements, has made no increase, as a whole, a few of the western States barely making up the deficiency suffered in Virginia and Kentucky. It is a remarkable fact that a region which nine years ago produced only one-seventh of the wheat in the country, now supplies nearly one-third of it. A similar progress in another decade will carry the centre of wheat production beyond the Mississippi, and were it possible for the Pacific coast again to quadruple its yield, that distant wheat field will give a larger product than the aggregate production of the United States in 1850. Well may the East imagine the supply of breadstuffs decreasing, and naturally enough the West may deem their harvests golden; but when twenty more years shall pass and the virgin soils of California shall be despoiled of their fatness, and their yield shall be reduced to ten or twelve bushels per acre, where will the spoiler go for new wheat fields to ruin?

The averages for October appear to show a decrease in production in Maine, New Hampshire, Massachusetts, Connecticut, New Jersey, North Carolina, South Carolina, Georgia, Alabama, and Texas, the latter having only half a crop. The other States indicate an increase, in most of those east of the Mis-

sissippi very slight; in Minnesota, 13 per cent.; in Iowa, 6; in Missouri, 8; in Nebraska, 13; in Kansas, 23; and in California, 25 per cent.

Many places in different parts of the country, especially in Maryland and Wisconsin, report a disappointment in the yield of grain in threshing. The disappointment, however, is sometimes in the other direction, as in the following case:

Erie county, Ohio.—From extended observations, after threshing of wheat had been more general, I have made in this return the average higher, as I am borne out in the larger estimates, and the quality of the wheat is better than last year.

The following items illustrate the tenor of many reports in favored districts:

Brown county, Minnesota.—Threshing commenced three weeks ago; wheat will average 26 bushels to the acre. This is above the average for the last five years. The grain was all put in the stack in good order and the quality is good.

Winneshiek county, Iowa.—Wheat will average full 23 bushels in this county, some as high as 35 to 38, and but a few go under 20.

Bates county, Missouri.—There never was a better crop of wheat harvested in our county. Some fields went as high as 35 bushels per acre, and one 37, and this in a region where it was said wheat could not be grown profitably until the Yankee invaded the country.

McCracken county, Kentucky.—Our crops will probably average one-fourth better than usual.

Coryell county, Texas.—The grasshoppers made their appearance yesterday, (23d,) in vast numbers, and if they continue with us as long as they did last fall, there will be another entire failure of wheat. The prospect was never more favorable for wheat sowing than now, if it were not for the grasshoppers.

Oats.—This crop is light in the eastern, middle, and southern Atlantic States; is not a full average in Michigan, Wisconsin, and Iowa; in the other States the product is above the average, the largest increase being 21 per cent. in Nebraska. In Wisconsin the deficiency is 9 per cent. Our Green county correspondent says: "The oat crop of this vicinity has been considered almost a certainty, but owing to very hot weather just as the oats were beginning to fill, the crop was materially injured. Fields that bid fair from 40 to 75 bushels per acre, when harvested, actually produced from 20 to 30. From many inquiries, I have heard of but one field producing over 30 bushels per acre. As a whole, the crop has been quite as large as that of last year."

Rye, in most of the States, is marked by figures very similar to those which show the relative product of oats.

Barley.—The barley crop is somewhat deficient in Ohio, Indiana, Illinois, Wisconsin, and in most of the Atlantic States. It will scarcely make so large an aggregate in bushels as last year.

Corn.—Considerable injury from frost is reported in northern Indiana, Illinois, Iowa, and more northern latitudes. In some portions of Iowa an estimate of two-fifths of soft corn is made. From southern Indiana, southern Ohio, West Virginia, and Pennsylvania, come complaints of immaturity in consequence of wet weather, and a few accounts of injury from drought are received. No general or very severe droughts have been reported. The high temperature of July was favorable to the growth of corn, but the unusual coolness of the later summer gave a sudden and injurious check at the critical period of earing, resulting in late ripening, smut, and other evidences of abnormal conditions. Yet the acreage is undeniably large in most of the States, and nowhere is there very serious failure. The total product will be, therefore, not what was hoped in the early season, or what is needed for a country with a rapidly increasing population, but a somewhat larger quantity than last year, which was a season peculiarly adverse to corn production. A good crop should exceed one thousand millions

of bushels. Last year's production was little more than three-fourths of that quantity, and the present, though not yet fully harvested, and the material for a final estimate returned, does not promise to reach that figure by 10 or 15 per cent.

COTTON.—The area in cotton is somwhat less than last year; its culture has been better; the preparation for planting more complete; and labor more regular and reliable, as a general rule. Early in the season the promise was fine; serious losses have of late been incurred, however, principally from depredations of the cotton caterpillar, or army worm, which have proved more general and severe in Georgia than elsewhere, very troublesome in portions of Alabama and Mississippi, and somewhat prevalent in the Carolinas and in Arkansas. Heavy rains in Tennessee and the southwest have caused anxiety, but done less damage than was expected. Our returns indicate a smaller crop, possibly by 15 or 20 per cent., than last year; but the complete estimate will not be made till the crop is gathered.

It is the aim of the statistician to give the exact truth, nothing to extenuate, and nothing to depreciate. Some farmers would conceal the actual facts of the harvest, with the expectation of better prices as a result of the deception. The hope is fallacious; the fraud will always be discovered. On the other hand, there are always buyers who will give publicity to extravagant estimates to depreciate prices and magnify a scarcity, after having purchased heavily, to give an unnatural stimulus to the market. Honesty is decidedly the best policy, for farmers as well as others. In these estimates, while a doubt exists, it may be proper to give producers the benefit of it, and make the figures somewhat smaller rather than larger than the probable result. Acting on this principle, the cotton estimate for 1866 was placed at 1,835,000 bales, and that of 1867 at 2,340,000 bales, while the actual shipments of the cotton for those years reached very nearly 2,000,000 and 2,500,000 bales respectively. Could every pound have been counted in advance, no fairer statement could have issued from this department.

PEAS AND BEANS will be nearly an average crop.

BUCKWHEAT is very generally deficient; Connecticut, New Jersey, Minnesota, California, and some of the southern States, furnish favorable exceptions.

SORGHUM has been more successful than last year. Illinois and Wisconsin are not quite up to last year's production. Both buckwheat and sorghum were injured by early frosts in high latitudes.

POTATOES.—In southern New England, New Jersey, Delaware, the Gulf States and California, potatoes are reported a full average crop, with a deficiency of 10 per cent. in New York and Pennsylvania, from 3 to 7 per cent. in the southern Atlantic States and Tennessee, 20 in Illinois, 10 in Iowa, 11 in Indiana, 15 in Ohio, 16 in Michigan, and a greater or less reduction in other western States.

SUGAR-CANE.—Returns from Louisiana indicate an increase of 42 per cent. over last year.

OLD WHEAT.—The amount of old wheat on hand is somewhat less than usual throughout the country with the exception of the cotton States, which have a higher average than last year. This remark will not apply to Texas, where the granaries are uniformly empty. The quantity left over in Wisconsin is relatively somewhat lower than in the neighboring States.

FATTENING CATTLE.—The stock of beeves in preparation for market is larger than last year west and south of New Jersey, except in Indiana and Illinois, which States constitute an important beef-producing section. The deficiency in Illinois is placed at 2 per cent.; in Indiana 5 per cent. The condition of fattening cattle is almost universally superior, giving promise of better and larger meat supplies than usual.

Table showing the condition of the crops, &c., on the 1st day of October, 1868.

STATES.	WHEAT.		OATS.		RYE.		BARLEY.	
	Average product compared with 1867.	Average quality compared with 1867.	Average product compared with 1867.	Average quality compared with 1867.	Average product compared with 1867.	Average quality compared with 1867.	Average product compared with 1867.	Average quality compared with 1867.
Maine	9.3	10	9	9.5	9.4	9.8	9	9.2
New Hampshire	8.6	9.1	8	8.6	9.3	9.8	7.5	8.3
Vermont	10.2	10.2	9	9.1	9.6	10	9	9.3
Massachusetts	9.7	9.3	9.4	9.6	10.1	9.6	9.6	9.6
Rhode Island	.....	.....	8.2	8.2	9.2	9.7	8	8.5
Connecticut	9.8	9.8	9.4	8.8	9	9.4	9.4	9.4
New York	10.3	9.8	9.4	9.2	9.5	9.6	9.9	9.5
New Jersey	9.5	9.8	8.1	8	9.1	9.5	9.3	9.5
Pennsylvania	10.2	10	9.2	8.6	9.6	9.7	9.6	9.6
Delaware	10.1	10.6	5.3	6	10	11	.....	.....
Maryland	10.5	9.7	8	7.2	9.6	10.1	9.5	9.5
Virginia	10.3	9.9	9.2	9	9.9	10	.....	.....
North Carolina	8.7	8.8	10	9.7	10	9.8	10.5	9.6
South Carolina	7.7	7.8	8	8.4	9.8	10	10.6	10
Georgia	8	8.7	9.2	9.2	9.3	9.7	9.9	10
Florida	.....	.....	9.2	9.4	8.5	9.5	.....	.....
Alabama	8.7	9	9.5	9.5	9.3	9.7	10	10.2
Mississippi	10.1	9.7	12.3	10.7	9.7	9.7	9	9
Louisiana	12.5	10	9.6	10.6	14	10.5	.....	.....
Texas	4.9	7.8	10.6	10.5	9.3	10.1	8.2	10
Arkansas	11.5	10.5	11.2	10.6	10.2	9.7	10.2	9.4
Tennessee	10.2	9.5	10.9	10.1	9.4	9.8	9.5	9.6
West Virginia	11.5	11.9	11.7	10.1	12	10.8	8.5	9.6
Kentucky	10	11.1	11.5	10.9	10.1	10.2	9.4	9.9
Missouri	10.8	10.1	10.5	10.4	11.5	10.4	10.6	10
Illinois	10.2	9.6	10.1	9.5	10.1	9.9	9.8	9.7
Indiana	10.3	11.2	10.1	9.7	10.7	10.1	9.7	9.9
Ohio	10.5	10.4	10.4	9.3	10.3	10.1	9.3	9.8
Michigan	10.5	10.3	9.4	9.2	10.1	9.8	10.3	10.1
Wisconsin	10.3	9.8	9.1	8.7	9.7	9.8	9.9	9.8
Minnesota	11.3	10.2	11.4	9.7	10.5	10	11.6	10.4
Iowa	10.6	10.4	9.6	9.3	10.5	10.3	10	10.1
Kansas	12.3	10.3	10.5	10.3	9.9	10.1	9.5	9.3
Nebraska	11.3	10.7	12.1	10.4	9.5	9.3	11.8	9
California	12.7	10.1	11	10.2	11	10	11	10.5

Condition of the crops, &c.—Continued.

STATES.	PEAS.		BEANS.	BUCK-WHEAT	CORN.	POTATOES, (Solanum tuberosum.)	POTATOES, (Batatus edulis, sweet.)	TOBACCO.
	Average compared with 1867.	Condition October 1, compared with an average.	Condition October 1, compared with an average.	Condition October 1, compared with an average.	Condition October 1, compared with an average.	Condition October 1, compared with an average.	Condition October 1, compared with an average.	Condition October 1, compared with an average.
Maine	9.7	9.2	12	9.3	10.3	9	.....	.....
New Hampshire	9.8	9.5	8.8	9	10.5	8.4	.....	.....
Vermont	9.6	9.7	10	8.7	11.2	9.1	.....	10
Massachusetts	10.2	9.6	9.3	11	9.8	9.4	.....	10.3
Rhode Island	10	10	10	10	10.8	10.2	10	.....
Connecticut	10	9.6	10.2	10.4	10.4	10.6	10	10.2
New York	9.2	9.3	9.2	9	10.1	9	9.5	9.7
New Jersey	9.8	9.5	10.1	10.1	10.9	10.1	10.1	10
Pennsylvania	9.7	9.5	9.4	9.9	10.3	9	9.9	10
Delaware	9	10	9.7	9	10.3	10	10	.....
Maryland	9.5	9.5	10.2	9.6	9.2	9.6	8	9
Virginia	10.6	10.3	9.8	10.7	10.2	9.6	9.4	9.9
North Carolina	11	10.2	10.2	10.6	10.5	9.7	9.2	9.7
South Carolina	10.6	10.6	10	.....	11.1	9.6	9.5	9
Georgia	10.5	9.9	9.9	10.1	9.4	9.3	10.2	9.6
Florida	11	10.2	11	.....	10.4	.....	11	.....
Alabama	10.8	10.9	10.1	.....	9.7	10	11.2	10
Mississippi	13.8	13.3	9.6	.....	11.7	12	12	10.6
Louisiana	12.8	11	.....	.....	11.1	12	11.7	12.6
Texas	11.9	10.7	10.3	.....	10.8	11.2	12.8	10.9
Arkansas	14.2	10.2	10.3	11.4	10.8	11.2	11	10.4
Tennessee	10.8	10.1	10.8	11	10.2	9.6	9.2	10
West Virginia	9.8	10	10.4	10.6	9.9	8.8	10.2	9.2
Kentucky	10	9.8	11.1	10.4	11.6	10.9	10.8	10.3
Missouri	9.6	9.5	9.5	8.4	9.7	7.9	9.8	8.5
Illinois	9.7	9.7	8.8	8.4	10.2	8	9.4	10.4
Indiana	9.7	9.7	9.3	8.4	10.2	8.9	9.9	9.5
Ohio	9.7	9.7	9.4	9.4	10.6	8.5	10.2	10.6
Michigan	9.8	9.5	9.6	9	9.8	8.6	9.5	9.4
Wisconsin	9.8	10	9	9.1	10.5	6.7	7.6	9.7
Minnesota	10.1	10.2	10.5	10.6	12.5	9.6	10	10.4
Iowa	9.4	9.1	8.2	8.4	10.6	9	9.2	9.3
Kansas	10.7	9.5	7.6	8.6	6	8	8.8	9.4
Nebraska	10	8.3	8	7.8	7.8	7.6	8.2	10
California	9.7	10.5	10.1	10	10.6	11.5	11	.....

Condition of the crops, &c.—Continued.

STATES.	SORGHUM.	SUGAR-CANE, (not sorghum.)	COTTON	OLD WHEAT	FATTENING CATTLE.	
	Condition October 1, compared with an average.	Condition October 1, compared with an average.	Condition October 1, compared with an average.	Average amount of old wheat in your county compared with 1867.	Average number of fattening cattle compared with 1867.	Average condition October 1, compared with 1867.
Maine	.....	.....	.....	9.7	9.6	9.8
New Hampshire	.....	.....	.....	9	9.2	10.1
Vermont	.....	.....	.....	8.5	9.5	9.8
Massachusetts	10	.....	.....	9.3	9.7	10.3
Rhode Island	.....	.....	.....	.....	9.7	9.7
Connecticut	9.7	.....	.....	10	10.4	11.4
New York	9.1	.....	.....	9.3	9.8	10.1
New Jersey	9.7	.....	.....	9.5	9.4	10
Pennsylvania	10.3	.....	.....	8.6	10	10.1
Delaware	9	.....	.....	10.3	11	10.3
Maryland	9	.....	.....	9.5	10	10.2
Virginia	9.5	.....	7.3	7	10.8	10.5
North Carolina	9.5	.....	9.1	8.6	9.4	10.5
South Carolina	9.5	.....	8	9.6	9.2	10.1
Georgia	10	10.3	7.5	11	10.2	10.9
Florida	.....	11.1	5	.....	9.5	12.5
Alabama	11.3	9.7	8.2	11.2	10.5	10.7
Mississippi	11.4	11.6	9	10.8	10.5	11.5
Louisiana	11.2	12.2	9.8	.....	12.8	10.6
Texas	10.6	12.2	10.7	4	10.3	11.3
Arkansas	10.8	.....	10	10.7	12.2	10.8
Tennessee	11.7	.....	8.2	10.3	10.3	11.6
West Virginia	9.8	.....	9	7.6	11.1	10.3
Kentucky	10.5	9.8	10.5	8.8	10.3	11.3
Missouri	9.5	.....	8.8	10	11.4	10.8
Illinois	9.3	.....	11.2	8.7	9.8	10.6
Indiana	10.1	10.5	.....	8.6	9.5	11
Ohio	10.3	.....	.....	8.5	10	10.5
Michigan	9.3	.....	.....	8.7	10.1	10.1
Wisconsin	9.4	.....	.....	7.1	10.4	10.2
Minnesota	11.3	.....	.....	8.9	11.2	11.1
Iowa	10	.....	.....	9.4	11.1	10
Kansas	9.1	.....	9.7	9.6	11.8	11.1
Nebraska	10.3	.....	.....	9	10.6	10.4
California	.....	.....	.....	7	10.2	11.1

EXTRACTS FROM CORRESPONDENCE.

GRASSHOPPERS IN UTAH.

San Pete county, Utah.—Since my last communication this section has been revisited by vast herds of locusts. They have come from all quarters, north, south, east, west, in addition to many millions hatched out from last year's eggs. They appear to concentrate their efforts against this settlement, to the relief of the surrounding ones. So determined has been the war which they have waged upon our small grain that our whole cereal crops will not exceed 250 bushels in place of what we calculate would, under ordinary circumstances, have been at least 20,000 bushels. Corn, potatoes, and garden vegetables have suffered more or less from them, and, in many cases, choice fruit trees have been stripped of both leaves and fruit by the locusts, while other varieties of the same fruit have been passed over. This has been especially the case with "English currant" trees, which have been almost universally stripped, while the wild varieties of the same fruit, transplanted from their native soil, have been let alone.

The locusts have, same as last year, deposited vast numbers of eggs, and we anticipate similar results from their young as suffered from last year's deposit. Our most experienced farmers think it wisdom to sow large quantities of grain this fall, which will be done as far as practicable. This will necessarily destroy, or at least disturb, many of the eggs, and thus lessen the brood for next year.

STRACHIA HISTRIONYCHA.

Buckingham county, Virginia.—I herewith send a box containing a number of living insects; that is, I start them alive, and hope they may reach your entomologist in good health, not losing their appetite for cabbage. These voracious insects made their first appearance in this section about the 1st of October last year, and reappeared about the 1st of September this year, and have totally destroyed all the cabbage in every garden where they have made their appearance. Our farmers usually set out from 500 to 1,500 plants, according to the size of their families, and many of our gardens are now as bare of cabbage as if we had never set out a plant.

[The insects sent are a species of field bug, *Strachia histrionycha.* The Department has also received them from North Carolina, where they were very abundant, destroying cabbage, &c. They pass the winter in the perfect state under bark of trees, under stones, moss, &c., where they may be found in early spring, and destroyed before they have had time to lay eggs for new broods.—T. G.]

GRAPES, HOPS, AND WOOL IN CALIFORNIA.

Mendocino county, California.—You will perceive that I have set down grapes and hops at a very high figure; this is owing to the fact that these branches are in their infancy, and, it might almost be said, this is the beginning of the enterprise. The prospect now is that but a few years will elapse before hops and wool will become important articles of export from Mendocino county. The valley lands are particularly adapted to their cultivation and abundant yield. The experiments heretofore made have given great encouragement. The wool-growing business is also becoming of great interest. Our extensive mountain ranges appear to be favorable for the healthy growth of sheep. These hills are covered with a rich fine grass, upon which they thrive. Several of our sheep-raisers have imported, and are constantly importing, into the county, bucks of the finer kinds, from which the original stock is being improved, most of the

present herds being half-breeds of the common stock crossed with such as the different sheep-raisers believe to be the greatest improvement. As the business of importing continues of course it will require but a few years to obliterate all traces of the old stock. But while some are embarking so extensively in these branches, there has been no diminution, but a large increase, of other agricultural products; the system of cultivating the land is being improved, and the yield of wheat and barley, which are the staple crops, is correspondingly increased.

WHEAT CROP IN SOLANO COUNTY, CALIFORNIA.

Solano county, California—The wheat crop in this county this year is immense. According to our assessors, we have harvested 74,989 acres of wheat, averaging thirty bushels to the acre. Wheat is our staple, and Solano now leads the other counties of the State in its production. The principal varieties raised are Australian and Club, some Chili, and very little Sonora. This immense crop is transported in wagons and by railroad to the various shipping ports of the county on the Sacramento river and Suisun bay, and is then carried by sloops and schooners to San Francisco, with the exception of that which is carried to Vallejo by rail, which is loaded on shipboard at the Vallejo wharves, bound direct for Liverpool.

CROPS IN OREGON.

Marion county, Oregon.—This has been a most remarkable year. We had a severe snow and sleet storm and very cold weather in January, which injured wheat and rye, and killed a large amount of fruit trees. The spring was cold and cloudy, but fine crops of spring grain were sown. Gardens were put in early. On the 7th and 9th of May we had snow, killing frosts, and ice one-half inch thick. Nearly all the fruit in western Oregon was killed; gardens the same. The cool, wet, and cloudy weather continued till July 1st, when suddenly clear and excessively hot weather ensued, and mostly continued till the time of my letter now being written. There was a slight frost on the 1st day of August. On the 7th and 9th of September we had severe killing frosts, and ice one-half inch thick; gardens and corn are greatly injured. The yield of grain is large, and there is quite a brisk demand for all our oats at 40 to 45 cents, and wheat at from 75 to 90 cents, cash. Hay crops are very light; the streams are lower now than at any time for 40 years. Immense destructive fires are raging and have been for six weeks past in the Cascade and Coast mountains, running down into the valleys, and doing great damage to timber, farms, &c. Often the smoke is so dense that persons can scarcely see to attend to ordinary outwork. Candles are burnt in the houses nearly all day. Not one-fourth inch of rain has fallen since July 1st, and the wind has set from north to northeast all the time, and there is no indication of a change. The dust is intolerable; no ploughing can be done; pastures are dried up, and, taken all together, we of Web Foot have never seen such another season here.

RICE AND SUGAR CROPS IN LOUISIANA.

Plaquemines Parish, Louisiana.—I have to report that the rice crop of this parish has been gathered in good condition. It is certainly the largest and best ever made here. I am within the bounds of truth in stating that our farmers will this season ship to market over 25,000 barrels of clean rice; a barrel holds about 230 pounds of clean rice.

The storm of the 2d and 3d instant injured our cane fields but slightly; under favorable conditions our sugar crop will probably reach 10,000 to 12,000 hogs-

heads. As you will see by the annexed table, showing the date of first frost, the winters here have been unusually mild the last three years:

1849	November 26.	1859	November 12.
1850	November 17.	1860	November 10.
1851	November 6.	1861	None.
1852	November 27.	1862	October 27.
1853	October 25.	1863	November 30.
1854	November 15.	1864	November 22.
1855	October 24.	1865	None.
1856	December 8.	1866	None.
1857	November 19.	1867	None.
1858	November 9.		

Last year the winter was so unusually mild that the sugar cane bloomed in some of our more favorable localities, which had not occurred here since 1842.

Last year our trees were weighed down with oranges; this year they have scarcely any. Cause, the same disease which made its appearance in Florida about the year 1840.

BUTTONWOOD BUSH.

Randolph county, North Carolina.—The Randolph Agricultural Club directs me to request the Department at Washington to propound the querry in circulars, monthly reports, or otherwise, "How best shall we get rid of the buttonwood bush, that is such a great pest in our natural or wet meadows?" It would be very desirable to know the most practicable means by which the farmer could get clear of the bush in question.

[Cut it down, spring, summer, and fall, until by continuous cutting it will become exhausted and die.—Ed.]

PINDARS.

Onslow county, North Carolina.—The Pinder pea is quite a full crop this year, and is largely planted in our county in many localities to the exclusion of cotton. There is an extensive belt of land lying on Brown sound, Stump sound, New river and other localities, that is peculiarly adapted to the growth of this pea, and is planted to the entire exclusion of cotton, yielding from 50 to 75, and in many instances as many as 100 bushels per acre, worth the past season from $2 to $4 per bushel, besides fattening a large quantity of pork. Where the land is adapted to the growth of the Pinder pea they will yield from 50 to 100 bushels per acre, and each acre can, after the crop is housed, fatten 10 head of hogs without other feed.

PRODUCTIONS OF KANSAS.

Agricultural Rooms,
Topeka, Kansas, October 15, 1868.

Dear Sir: Upon the 6th instant I forwarded to you by express a box of cereals and fruit from our State fair, trusting that you will deem it a worthy contribution to your Department. It is generally conceded east that Kansas is a good stock and grain-growing State, but, to our prejudice, an erroneous idea prevails that we cannot raise fruit. I sent you a variety of autumn and winter

apples, and the same of pears, the season of peaches and grapes being over, though we were favored with magnificent crops of each.

Respectfully yours,

H. J. STRICKLER,
Secretary Kansas State Agricultural Society.

Hon. HORACE CAPRON, *Commissioner, &c.*

[The box referred to came to hand, and the specimens sent will be placed in our museum to the credit of Kansas. The fruits included in the collection are fully equal to those of more eastern production, and serve to disprove the impression that Kansas cannot grow fruit successfully.—ED.]

ILLINOIS CROPS IN 1867.

Our Hancock county (Illinois) correspondent supplies the following figures, taken from returns made to the auditor of the State:

Whole number of acres in wheat	1,978.588
Whole number of acres in corn	3,970,218
Other products	1,535,236
Total average	7,484,042

Best ten wheat counties in the State: St. Clair, De Kalb, Bureau, Ogle, Henry, Lee, Adams, Hancock, Whitesides, and Sangamon. Best ten corn counties: McLean, Sangamon, Knox, Hancock, Henry, Warren, Tazewell, Vermillion, Adams and Fulton.

CORN.

Madison county, Iowa—Corn injured by frost in September.

Brown county, Indiana.—The recent heavy rains have kept corn from ripening; it is quite green and in danger of frost.

White county, Indiana.—Our corn and buckwheat crop was universally promising until damaged to a considerable extent by a severe frost on the morning of the 17th of September. It is impossible yet to estimate the full extent of mischief done to the corn crops.

Posey county, Indiana.—Owing to the wet spring, corn was late in being planted, and most of it is greener than usual. With a late fall the crop promises a little more than an average; an early frost will make it short.

Jasper county, Indiana.—Frost on the night of the 17th of September hurt our corn to some extent.

Kankakee county, Illinois.—The frosts of Wednesday and Thursday nights last has done no damage to corn in Kankakee, Iroquois, and Ford counties. The corn crop in this section of the country is the largest I have seen for 20 years. In Ford and Iroquois counties there is a very large increase of acreage.

Putnam county, Illinois.—Corn is not as good as in 1867, on account of the frost, but the product will far exceed that of last year.

Henry county, Ohio.—Oats very light; poor yield; cause, dry weather. Corn, greater breadth planted; quality inferior. Late planting and early frost.

Washington county, Ohio.—The weather has been so wet during the months of August and September that it has injured grain and hay in the stacks; also beans and corn fodder, and perhaps some corn in the shucks.

Mason county, Michigan.—The dry weather in the early part of summer has affected our crops all over the county; some will not husk their corn.

Athens county, Ohio.—Our corn crop falls far short of our August prospects; injured by drought and grasshoppers.

St. Croix county, Wisconsin.—Corn is a superior crop.

Lewis county, Washington Territory.—Heavy frosts on the night of the 11th instant, injuring corn.

Polk county, Iowa.—We are grievously disappointed in our corn crop. We have more acres by 40 per cent., and never had a better promise for the heaviest crop per acre until the early and most terrible frost of the night of the 18th of September. At first it was supposed the damage would not be very great; it now proves that two-fifths of the entire crop is unripe, and unfit for market or shipping.

Washington county, Nebraska.—Corn is good; some of the late is somewhat injured by frost, still we will have a large yield. Corn is selling for from 50 to 60 cents per bushel; oats from 40 to 50 cents per bushel.

Prairie county, Arkansas.—Our corn crop, early and late, is matured, and will be the largest since 1862, nearly doubling the average crop.

Drew county, Arkansas.—Corn is now being gathered; a very large proportion is unsound.

De Kalb county, Missouri.—Corn, which early promised a large yield in some localities, is not over 50 per cent. of the yield promis d June 20.

Spencer county, Kentucky.—The corn and sorghum are very green, and much has been prostrated by wind and rain and is suffering.

Anderson county, Kentucky.—Corn has fallen down to a great extent and probably damaged considerable; but the crop in this county will be better than any since 1855.

Russell county, Kentucky.—After making deductions for all injured corn and oats we will yet have more than for 20 years.

Fayette county, Tennessee.—The corn crop is being very much damaged by the wet weather. The cob of the ear at the butt-end is rotting, and the grain sprouting, and in some sections great apprehensions are felt for a sufficiency of bread for the coming winter; some persons turn down the stalk at the point first below the ear, so that the shucks that envelop the grain will shed the water.

Pike county, Mississippi.—The corn crop has matured, and to a great extent gathered; it is the best we have had for years.

Spartansburg district, South Carolina.—Corn is exremely fine; market expected to open at 40 to 50 cents.

Franklin county, North Carolina.—The corn crop as compared with 1867 is very good; on high land the yield will be one-third larger than in 1867, and but for the entire destruction of the crops on the river it would have been double.

Bertie county, North Carolina.—The long drought in early summer cut short all the early corn from one-third to a half crop; in this and adjoining counties of Norfolk and Currituck it will be much shorter than estimate in the report for September would indicate.

Kanawha county, Virginia.—Corn exceeded all expectation for quantity, but the late rains have done considerable damage.

Clark county, Virginia.—A protracted drought has prevailed in this county since the last of May until the rains set in in September; corn is almost a perfect failure in certain portions of the county.

Putnam county, West Virginia.—The spring at the usual season for planting corn was very wet, so as to cause late crops and in many instances to reduce the quantity which farmers intended to plant; then the critical season for it, July and early in August, was very dry. Now, and for a few weeks past, when dry weather would mature and save the crop, we are and have been suffering from most unprecedented rains. I have never known autumnal rains to do anything like the amount of damage to corn which they have recently done.

Henrico county, Virginia.—Corn mostly cut and found to be very fine.

Adams county, Pennsylvania.—Corn better than I have known for years.

Baltimore county, Maryland.—The corn crop is magnificent; a full average can be stated.

Queen Anne county, Maryland.—Our corn is generally very light; but on some high, dry, and improved land there are good crops. Public opinion estimates the crop at only half an average, but I have placed it at a seven-tenths.

Morris county, New Jersey.—Corn crop is better than for many years.

Indiana county, Pennsylvania.—The corn and buckwheat in this county will not, on an average, make more than six-tenths of a crop; this is on account of the dry season. Buckwheat was somewhat shorter by the untimely frost.

Amelia county, Virginia.—Upon more careful inquiry we have been led to change our figures for the corn crop. It is better than last year so far as concerns ripeness and size; but the horned worm has been more numerous than for any year since the war, and our labor being insufficient, we have been unable to get them caught as of old, and whole fields have been eaten almost entire.

Norfolk county, Massachusetts.—There was a heavy frost about the middle of September which injured considerable corn; at least half the fields have not been topped; much of the corn fodder is worthless.

COTTON.

Sampson county, North Carolina.—Cotton very much injured by rust and army worm; the latter began its ravages much earlier than in previous years, say 1st of September this year, and the 15th heretofore.

Gaston county, North Carolina.—Excessive rains will shorten the cotton crop at least 10 per cent.

Bertie county, North Carolina.—Cotton has been very much damaged by a damp, cool spell, which came about the 10th of September, causing it to shed all the forms and many young bolls, at least all that came in September. Since that time the rust and caterpillar are doing much damage, making it open before it is grown.

Franklin county, North Carolina.—The cotton crop was injured by wet weather in August and September. The yield will not be as great as it was in 1867, though the profit to the farm will be greater, less having been paid for guano and other fertilizers.

Newberry district, South Carolina.—The caterpillar has made its appearance for the first time this season; whole fields are entirely stripped of leaves, and in many cases the young bolls have been cut off. Neither blossoms nor young bolls mature after the worms make their appearance. The crop must be shortened fully one-third.

Abbeville district, South Carolina.—Since my last report the army and boll-worm have attacked the cotton and damaged it severely. The cotton, in consequence of an unfavorable spring, was late, and therefore more exposed than last year to the ravages of the worm.

Spartansburg district, South Carolina.—Cotton has improved since my last report, but the worms are eating all the small bolls.

Butts county, Georgia.—The caterpillar worms made their appearance in this county about the middle of September, and in two weeks had destroyed the leaves on most of the cotton stalks. Such a visitation of these worms never occurred here before. We estimate six-tenths of a crop, as compared with last year.

Emanuel county, Georgia.—The rust and army worm have laid waste our cotton fields since my last report. Not satisfied with the total destruction of leaves, they have attacked the young bolls with equal success. Our fields look as if a fire had swept over them.

Columbia county, Georgia.—Since my last report the worm and caterpillar

have played havoc with the cotton; none have escaped, and we cannot expect over half as much as last year, and it will all open by the 15th of October.

Troup county, Georgia.—The rains, together with the devastation of the caterpillars, have nearly destroyed the cotton crop for this county. One-half will be a very safe calculation.

Baldwin county, Georgia.—The cotton crop has been very severely injured during the past month by the caterpillar; whole fields of young bolls destroyed in a week's time, so that the last crop is cut off. I have farmed here for thirty years, and have never seen such destruction in this county.

Hall county, Georgia.—Cotton is being very much injured by worms.

Tatnal county, Georgia.—Since my last report of the condition of the cotton crop, a disastrous change has occurred. The caterpillar has made its appearance, and its ravages are unprecedented; the entire crop on many plantations has been swept away.

Morgan county, Georgia.—The cotton crop will be exceedingly short. The army-worm is making sad havoc in all parts of the country, stripping off the blooms, squares, and unmatured bolls. The corn crop is also very short. These failures are having a tendency to make our farmers turn their attention to other things, which in this mild, genial climate is a thing very much to be desired. We want a complete system of mixed farming, and the plantations reduced so that they will not average over 300 acres.

Heard county, Georgia.—The crops in our county will be short, especially cotton, the worms having destroyed all the late crop; they are doing more injury than I have ever known in this part of the State.

Taylor county, Georgia.—Since my last report the cotton crop has been seriously injured in every part of the county. Not a single farm has escaped the ravages of the caterpillars. They made their appearance about the 5th of September, and in a very few days they were seen in every cotton patch in the county. They are not of that species of worm that travel from one farm to another, but each farm seems to have produced its own stock. When first seen they were very small, and in five days they were full grown. When full grown they are about one and one-fourth inch in length and about the size of an oat straw in diameter. They appeared in sufficient quantities in most places to strip the cotton stalks of all the leaves, forms, and small bolls within five or six days from their first appearance.

After these caterpillars have attained their growth they web up and fasten themselves to the limb of the cotton stalk. In a few days a hard shell encloses them and turns back, and within a few days more, say six or eight, they hatch out a small butterfly, a little lighter than lead-color. They resemble, very much, what is known with us as the candle-fly. At this time there are in all the cotton fields in this section millions of these butterflies.

In many instances these caterpillars made their appearance in such numbers that a cotton field would be stripped of its leaves in the short space of two days. They then attacked the bolls, destroying all that were not well-nigh matured, by eating off the hull that encased the cotton. The result is that our crops of cotton are materially shortened and the cotton is opening very rapidly. The leaves having all been destroyed the sun has full power on the bolls, which hastens them to maturity, and the leaves being destroyed the stalk is fast drying up, which will cause the cotton to open prematurely. It is safe to state that, if the weather continues favorable for gathering, the entire crop will be gathered by the last of October, and in market soon thereafter.

[The worm referred to is the cotton caterpillar, *Anomis Xylinæ*.—T. G.]

Crawford county, Georgia.—The decrease, in this report, of cotton has been occasioned by rain, which caused the plant to throw off its forms, and by the attack of the caterpillar and boll-worm, whose combined devastation is unprecedented in this county.

The caterpillar strips the stock of all its foliage, squares, blooms, and bolls below the size of half-grown, and the calyx from the grown bolls. At present we cannot accurately determine the loss occasioned by them.

Clay county, Alabama.—The army-worm has entirely stripped our cotton. Not a leaf or young boll remains, which will cut off the yield considerably. We cannot possibly realize over half a crop.

Montgomery county, Alabama.—I fear our cotton is damaged by the early visitation of the cotton caterpillar more than three-tenths below the average of last year. Fall unfavorable for gathering; more rain than usual.

Opelika, Alabama.—Cotton-worms appeared on the 10th of September, and by the 17th whole fields were leafless. Near houses, chickens and hogs ate the worms greedily without injury to the plants, and might be a complete remedy, if in sufficient numbers to go over the fields. By the end of the month the worms were gone, and the damage seems less than was feared.

Greene Springs, Alabama.—By the 25th of September the army-worm destroyed every green leaf and young boll of cotton, reducing the crop one-third or one-half.

Lawrence county, Alabama.—Cotton has been injured by the late rains, and also by the caterpillar. In some sections the caterpillar has destroyed half the crop.

Baine county, Alabama.—The army-worm has eaten all the leaves off the cotton and some of the young pods; the extent of injury is not fully known yet.

St. Clair county, Alabama.—Cotton promised over an average in this section, but has been cut off perhaps one-third by the army-worm.

Marshall county, Alabama.—The boll or army worm has made its appearance in this locality. It is very destructive, first making its appearance about two weeks ago, eating off the leaves, and they have now commenced eating the young bolls. If they continue as they have begun the consequence will be but little over half a crop. There will probably be about 2,500 bales raised in this county this year, if the army-worm is not too destructive.

Conecuh county, Alabama.—The cotton fields have been stripped of every leaf for the last ten days, and one would think that it was dead winter to look at a cotton plantation in this section of country. Not one field or plantation has escaped their ravages, and it is a well-conceded fact that there will not be more than a half crop made, and I doubt very much if that much.

Leake county, Mississippi.—The cotton will not be more than half a crop, owing to boll-worms and caterpillars, together with heavy rains, which have caused the cotton to rot.

Winston county, Mississippi.—The worms and rain have pretty well destroyed the cotton crop.

Attala county, Mississippi.—Cotton was never poorer; eaten up by boll-worms and caterpillars; can't make more than half a crop.

Washington county, Mississippi.—The average condition of the cotton crop in this county is about seven-tenths. The rains and the worms have damaged it during the month.

Amite county, Mississippi.—Acreage of cotton much less, but far superior to last year in yield.

Pike county, Mississippi.—I have reduced my estimate of the cotton crop, in consequence of the ravages of the army worms. They have appeared much later and in less numbers than last year, and their ravages have been partial, one plantation being affected while an adjoining one entirely escapes. One part of a field would be destroyed, while another would not be affected. They made their appearance about the 5th of September, and webbed up in some 20 days. There is 25 per cent. less acreage this year than last, but the crop is 25 per cent. better.

Union parish, Louisiana.—Cotton, as compared with last year, will be fully 25 per cent. better.

Jackson parish, Louisiana.—The cotton-worm has now finished eating all the cotton leaves, (the leaves were all eaten one month earlier last year.) I think this parish will make one-third more cotton this year than it did last. It will all be in market by the first of December. Freedmen have worked much better this year than last.

Washington county, Texas.—Cotton is cut very short by the worm. Early in the season the prospect was very fine. Just now it is impossible to say what the crop will be. If we do not have frost early there will be a very fine crop made. On some land planted early the yield will be one bale of 500 pounds per acre, while on some late there will not be 200 pounds clean cotton. All the early cotton will give a fine return.

Henderson county, Texas.—The worms have injured cotton but little this season, and though there was not as much cotton planted as last year, there will be about the same quantity made.

Dallas county, Texas.—This is the first year of raising cotton in this county, and the yield will be about a bale to the acre; about 2,000 bales in the county; condition good.

Independence county, Arkansas.—The continued rains threaten to ruin the cotton crop; bolls rot without opening; condition exceedingly critical.

Cross county, Arkansas.—For the last ten days we have had a good deal of rain, which has damaged both corn and cotton.

Prairie county, Arkansas.—The extremely wet season has injured the cotton crop, and if continued the crop will be below that of last year.

Drew county, Arkansas.—The condition of the cotton crop has declined 20 per cent. since my last report. There has been an unusual fall of rain for this season of the year, the rains being succeeded in almost every instance by long spells of cloudy weather, preventing the drying off of the open and partly opened bolls before they rotted. The bottom and middle crops, which are always the main reliance, are greatly injured from this cause. The caterpillars, too, have appeared and eaten the cotton foliage upon some farms, thus damaging the top crop. Their depredations, however, have not been very injurious, and in some cases they are thought to have been beneficial, as by stripping off the leaves they gave a fair show to the little sunshine we have had upon the bottom and middle crops.

Fayette county, Tennessee.—It is difficult at this particular time to give an approximate estimate of the cotton yield. It has been raining and misting for nearly three weeks without one entire day's intermission; and when such has not been the case it has been cloudy and cool and cold, the most unfavorable conditions of weather for cotton at this period of the season, when it requires constant dry, warm sunshine to mature the crop. Wet or damp weather favors the worm in its ravages, and rots the lower bolls. The crop has been materially damaged up to this time. Six weeks ago it was in better condition and promised a better yield than any crop since the war. Should the present unfavorable weather continue a short while longer not more than a half crop for the acreage can be hoped for. Such as has been picked is so stained and damaged that it will materially affect its price.

Giles county, Tennessee.—Since my last monthly report we have had almost incessent rains, causing the cotton bolls to rot and fall off. It is impossible to make over three-fourths of a crop.

Davidson county, Tennessee.—I have just returned from a trip through northern Alabama and northern Mississippi, and the western and middle districts of this State. The indications denote a much larger yield of cotton than was supposed, despite the long continued rains. The bolls were opening freely,

especially in the uplands, and should the present fine weather contine a few weeks you will have a larger crop to report than last year.

POTATOES.

Norfolk county, Massachusetts.—Potatoes as yet will bear an average mark, but much now depends upon the rot.

Berkshire county, Massachusetts.—Potatoes suffered much from the dry weather. The crop will fall short of that of last year. In a few instances the rot set in in September and materially injured fields where it prevailed. Buckwheat indicates an improvement on last year.

Hudson county, New Jersey.—At our stock fair the farmers all report good crops of corn and wheat, very little fruit, and extensive rot in potatoes, all attributing the latter to the excessive rains of the past season.

Indiana county, Pennsylvania.—Potatoes are a short crop, and are not good in quality.

Elk county, Pennsylvania.—The potato crop has improved wonderfully in this county. At first it was thought to be a failure, but rain came and increased the growth very much—not many under a hill, but what are there are very fine; in low bottom land a few cases of rot are noticed. This last wet time has told hard upon buckwheat.

Morris county, New Jersey.—Potatoes yield well and rot but little.

Clarke county, Virginia.—Late potatoes, except under straw, have failed entirely.

Greene county, Missouri.—Since August 29 we have had heavy rains; the late planted potatoes will make a fine crop.

Hall county, Nebraska.—Corn and potatoes would have yielded well, had it not been for the grasshoppers; they have been worse this year than ever, but they have deposited no eggs. These grasshoppers, I fear, will cause famine eventually, if they are not destroyed soon. I have watched them for nine years; they are increasing to an alarming multitude.

Ford county, Illinois.—Potatoes are growing faster now than at any other time this season, and bid fair to be an average yield.

Oakland county, Michigan.—Frost on the 16th of September that killed potato tops and corn-fodder in many localities. The damage to the potatoes will be considerable, as they are late.

St. Croix county, Wisconsin.—Potatoes badly injured by the ten-lined spearman.

Columbia county, Wisconsin.—The potato crop in this county is much less than usual, some fields being almost entirely destroyed by the potato bug, (ten-lined spearman.) Other fields, where "eternal vigilance is the price of potatoes," were saved, and a fair yield obtained. I had one of the best crops I ever raised in this State, when in an adjoining field they were not worth digging.

Waushara county, Wisconsin.—The potato bug made great havoc with the potatoes, but since the late rains they (the potatoes) have improved considerably; will have some good ones, but more bad ones.

WHEAT EXPERIMENTS.

Coffee county, Tennessee.—I received from your Department in November, 1866, five quarts of the Tappahannock wheat, four of which I sowed, and harvested enough in 1867 to produce 63 bushels in 1868, of superior quality. I think it the most desirable varieties in this section. Its vigorous growth, hardiness, early maturing, freedom from smut and rust, and superior quality and yield of flour, all recommend it to our farmers.

Dutchess county, New York.—The Tappahannock wheat received from the Department last fall did not fill, there being no grains in the heads.

Berrien county, Michigan.—Last year I received three varieties of wheat from the Department—Tappahannock, Tasmania, and Chiddam—the quantities being equal. I sowed them side by side, the Chiddam in the middle. The Chiddam was completely destroyed by the weevil, while the other varieties were not injured in the least. The Tappahannock and Tasmania made a very fair yield. I think the Mediterranean is ahead of anything that has been imported for many years.

Nashville, Tennessee.—The Tappahannock wheat has had a favorable test in this section. Last season one farmer in Maury sowed 120 acres, from which he had an average yield of about 30 bushels to the acre.

CATTLE DISEASE.

Vernon county, Missouri.—Our best cattle are dying with Spanish fever, and there are fears that one-fifth of the cattle in this county will be destroyed by this plague the present season.

Chatooga county, Georgia.—The cattle in this county have suffered much from "murrain" or "Spanish fever." No cause properly ascertained, and no remedy successful. The pasturage is unusually good, yet the mortality is much greater than last year.

Kankakee county, Illinois.—In this portion of Illinois, where the Texas cattle have been allowed to graze, the native cattle have died in large numbers. I think the State has lost this year, in consequence of the introduction of Texas cattle, not less than one million dollars.

Gordon county, Georgia.—The murrain or distemper has been very fatal among the cattle this season, two-thirds of those attacked having died. The fly has also been very bad on cattle and horses.

HORSE DISEASE.

Rio Grande, Cape May county, New Jersey.—Early in September a distemper, like black tongue, prevailed among horses in this county. About 20 high grade animals died in the vicinity of Goshen, in two or three days after being seized.

BEES.

Washington county, Iowa.—Mrs. Tupper writes that the past season has been the poorest ever known for bees. In some of the best honey regions, like southern Illinois and Missouri, thousands of colonies have starved to death already. In no part of the northwest has there been an average yield of honey. "I have received over one hundred letters within a month, all telling the same story; and yet, have not heard of a single Italian colony that has failed to gather sufficient winter stores, and some have even stored a surplus when black bees side by side with them have done nothing."

SECOND CROPS OF FRUIT.

Sulphur Springs, Rhea county, Tennessee.—Owing to the wet season, or from some other cause, our strawberries have this year produced two crops.

Morris county, Kansas.—Indian summer commenced September 26. Apples and Siberian crab are in fresh bloom and set with new fruit. Pasturage fresh as in May, owing to abundant rains.

PROTECTION OF ORCHARDS FROM MICE.

Buffalo, New York.—It is well known that young orchards throughout the northern States are partly and sometimes wholly destroyed by mice, especially when the snow lies deep for any length of time. Many remedies have been applied, but few if any prove an effectual preventive. I propose to take a strip of tarred paper, such as is commonly used for roofing purposes, say 18 to 20 inches long and of sufficient width to wrap around the tree twice, taking care to remove the earth a little, so as to get the paper well down. Tie the paper in two places with a string, return the earth up to the paper, and you may then feel sure that the tree is safe from harm. The paper should be taken off in the spring and laid away for future use. The paper will last several years, as time and weather appear to affect it but little, and the expense is small in comparison to the advantages to be gained.

THE "SPANISH FEVER.'

The human mind—perhaps especially the American mind—has a tendency to act spasmodically, and to foster periodical excitements, as well upon industrial topics as in social or political matters. The recent prevalence of the "Spanish fever," or "splenic fever" of Professor Gamgee, at certain railroad stations of the west, and in a few of the eastern cattle-yards in which western cattle are received, affords a good illustration of this fact. For twenty years, at least, have the Gulf-coast cattle been brought northward, and during all that time have native cattle herding for a time with them, or feeding over their trail, sickened mysteriously and died almost inevitably if the migration occurred in the heat of summer, but not otherwise. The cases have not only been multiplied season after season, but they occur with such uniformity and regularity that they are expected with the coming of every southern drove, in the proper season, and under the usual circumstances. Whatever the latent cause, however the infection is communicated, the connection of these migrating herds with the malady is so patent to common observation, so fully pointed out by a mass of facts, that one's reason and common sense are stultified by a denial of the evident fact that these incoming cattle are in some way the cause of the sickness. Veterinary surgery may be nonplussed, but the *facts* remain unexplained. Medical men may say it is impossible for apparently well cattle to cause fatal sickness to others, and yet exposed animals sicken and die without remedy, and no adequate or even plausible theory in avoidance of the unwelcome conclusion is proposed. Were there no mysteries that medical science still leaves unfathomed, and were its postulates in every case made the subject of a demonstration mathematically complete, the bare assertion of the impossibility, without proof, might be accepted. Thus while distant doctors ignored the disease, and herdsmen in Illinois cared nothing for the losses of their brethren in Missouri, a change in the mode of travel brought the Texas droves directly into the heart of the west, and even into the stock-yards of the east, when straightway a panic arose which struck at once boards of health, railroad officials, and State executives, and filled the columns of newspapers with vague and baseless apprehensions and theories, creating excitement and alarm, reducing beef consumption, and bankrupting the astonished drovers. The panic has subsided as rapidly as it arose; the disease could not spread beyond the animals infected, with a decent cleanliness in cattle trucks, and in no event beyond the animals actually transported; and a seclusion of southern from western cattle instantly stayed the progress of the disease.

That the importance of the subject is not overlooked by this Department is shown by the repeated investigations undertaken in former years, and in the

prompt appointment of a medical commission during the recent outbreak, the report of which is now almost ready for publication; but it cannot give its countenance to spasmodic and unreasoning excitement which may do as much injury as the disease itself. While writers for our press, and in some cases agricultural editors, have so misunderstood some of the most palpable facts of the malady, it is not strange that foreign governments should promulgate and act upon similar misapprehensions. The following, relative to restrictions upon the importation into Great Britain of American hay, is from the London Agricultural Gazette:

> Then there is the extraordinary story respecting the communication of the American malady by the Texas cattle, who are not themselves affected by it. Such peculiarities are wonderfully interesting to scientific pathologists, but breeders and feeders of stock will be more comforted by the assurance that precautions have been taken to prevent their herds from becoming acquainted with such morbid oddities. Rumor, in short, gives a bad character to Texas or Spanish cattle-fever, and it is not upon us that the onus lies of clearing its reputation from unjust aspersions; we speak with the full conviction that every stock-owner in the country will accept our sentiments as his own when we say that good reason existed for the order which was passed on Tuesday last, restricting the use of American hay to animals that are not likely to be harmed by it. As Liverpool is a great mart for hay for horses, no great hardship is inflicted upon the hay trade, and a possible source of danger to our cattle is removed. Something was required to be done beyond merely waiting to see what might happen. The veterinary department of the privy council was bound, as we heard it expressed, to allay the alarm by an assurance that it was groundless, or tacitly to admit the danger, and advise the adoption of proper means to avert it. In choosing the latter alternative the executive has, we believe, acted wisely.

In view of the probability that there is not a ton of hay for sale in the United States that could infect a single animal, and to the further apparent certainty that such case, if it should exist, could not communicate the disease to a second animal, the absurdity of this restriction, and the fear which caused it, is strikingly manifest.

The Mark Lane Express of October 5 has a quotation from remarks of Lord Montague, at an agricultural meeting, which is full of the most extravagant misapprehensions. One of many is thus expressed:

> The disease which has been ravaging that great continent during the present summer was similar in all essential points to the cattle plague which ravaged this country in 1866. Its highly contagious nature, the great rapidity of its spread, its fatal character, and the speediness of death in almost every instance, will be recognized at once as facts of our own experience. The cattle plague is indigenous in Texas, just as the rinderpest has its home in the steppes of Russia.

This disease is not at all like rinderpest; it is not contagious; it does not spread at all, the virus being limited to one "generation," instead of passing through animal after animal without diminution of infecting power; and the active form of the disease, instead of being "indigenous in Texas," is not known there, though Texas animals appear to communicate it.

The report of Professor John Gamgee, of the Albert Veterinary College, England, who spent several weeks in Indiana, Illinois, Missouri, and Kansas, in careful investigation among diseased native animals and Texas herds, and in post-mortem examinations of both kinds of stock, is nearly ready for publication. Answers to specific inquiries relative to this season's outbreak are coming forward to add to the mass of facts illustrative of the subject. Chromo-lithographs of the spleen and other organs will illustrate the report if an appropriation is made by Congress for that purpose. All this matter will be presented to Congress at the approaching session for publication in such form as that body may authorize.

INDIAN AGRICULTURAL EXHIBITION.

A correspondent who was present furnishes an account of an exhibition made by the civilized red men of New York:

On the 30th day of September, and the 1st and 2d of October, the ninth annual exhibition of the Iroquois Agricultural Society was held on the Cattaraugus reservation, Cattaraugus county, New York, near Versailles.

The Indians of the State of New York are the remains of the several tribes which once formed the powerful confederation known as the Six Nations. To the thoughtful observer, this, their annual fair, was an event of exceeding interest and of great significance. While the cry of "extermination" is heard, not only from the brutal, mercenary, and unprincipled, but from the lips of men in high positions and of otherwise humane disposition, it is suggestive to behold such an unanswerable argument of the capacity of the red men for self-support and for civilization.

The Cattaraugus reservation contains about 52,000 acres, and a population of about 3,000. Upon it are a number of farms in a high state of cultivation, well fenced, well stocked, and partially worked by means of modern labor-saving machinery. The horses are, as a general thing, of superior character, and give evidence of great care, both in breeding and training.

The Agricultural Society own a well-situated fair ground, with a building for the exhibition of vegetables, fruits, and domestic articles, and an excellent track for trials of speed. The extent and character of the exhibition were far beyond the anticipation of the writer. Not only was there a variety of articles, but the character was generally superior. There were corn, beans, potatoes of fine size and various kinds, such as Peach-blow, Clinton, Meshanock, &c., beets, pumpkins, and peas, apples, peaches, pears, quinces, plums, and grapes, bread and cake, beadwork of exquisite patterns, beautifully embroidered needle-work; butter as nice as could be desired; honey, fowls, Chester hogs, of great size; Merino sheep, young steers, yoked and driven by boys; more than thirty milch cows, calves, bulls, oxen, mares and colts, some of the colts being of great size and beauty, doors, window-sash, boots, a straw-cutter, sled, maple-sugar, and other articles that were not noted. There were many samples of grain, such as red and white wheat, spring wheat, barley, and oats, most of it of superior quality.

It must be remembered that none but Indians are allowed to compete for premiums, and the above list comprises, therefore, the actual productions of their gardens and farms.

On the afternoon of the 1st of October, an address was delivered by Benjamin Hallowell, of Sandy Spring, Maryland, who had been invited to visit them for that purpose, which was listened to with interest and attention; and he was invited to write out his remarks for their more deliberate consideration.

Mr. Hallowell presented to the society 15 volumes of agricultural publications, and 64 choice packages of seed-wheat, that had been forwarded through the kindness of Commissioner Capron, with both of which they seemed highly gratified. The speaker explained to them that should this seed produce at the ratio of some fields near Rochester, during the present year, (40 fold,) the amount sent would, in the fifth year, reach 204,800,000 bushels, or more than sufficient to seed 3,840 reservations as large as Cattaraugus and Allegany together.

Some remarks were made by another gentleman present, encouraging them to plant trees and flowers and otherwise beautify their homes.

The attendance was very large, many citizens from neighboring counties being present. The only cases of disorder or intemperance noticed were among a few whites. The Indian girls and women (many of them of great personal beauty, and with fine manners) were dressed with taste, the garments all being of their own make. The affairs of the society are managed entirely by Indians, the secretary being Singleton H. Parker, an accomplished gentleman, and brother of Colonel E. M. Parker, of General Grant's staff. Nothing strikes a stranger with more force than the dignity of bearing and propriety of demeanor of these descendants of a warlike and rude people. They are industrious, ingenious, and some of them highly educated. It is true that there are occasional instances of intemperance and idleness, but these failings are not confined to our red brethren.

The exhibition described above gives abundant evidence of thrift and industry upon the part of many, whereas if only one should show such capacity for improvement, it is clearly the duty of a great and professedly Christian nation to endeavor to civilize the fast-fading and much-suffering races beyond the Mississippi. Not only would it be doing its duty in a manner worthy of the enlightenment of the 19th century, to these foster children whose lands we occupy, and adding to its wealth by converting consumers into producers, but it would be done at one-tenth the cost of the wars that are now desolating the frontiers and hardening the hearts of all who are brought in contact with these unfortunate people. As has been remarked by Rev. Asher Wright, a benevolent missionary, who has devoted thirty years of his life to the welfare of these Indians: "If the New York Indians could live and pass the crisis, and begin to thrive and to increase in population steadily and permanently, as shown by the reports of the Commissioner of Indian Affairs, by the census returns, and

by the message of the governor of New York, there can be no ground for the despairing of like results anywhere where kind treatment and honest regard for their rights can be extended to the Indian race for a sufficient length of time to give them faith in the permanence of such a policy."

The enlightening influences of agriculture have been one of the most efficient aids in accomplishing the much that has been done for the advancement of the Indians of New York.

EVILS OF LAND MONOPOLY.

The following just views of the cause of land monopoly occur in an address at the recent annual fair of the State Board of Agriculture of Nebraska, delivered by Major H. F. Brooks, of Rochester, New York, and heartily endorsed by the actual settlers of Nebraska, and warmly seconded by the secretary of the board, C. H. Walker, in a communication enclosing the address:

You have now in charge of your State 800,000 acres of land; that land is worth more than all the railroads you can build in 40 years. Whatever you do with it, require that it be passed at a low price and in limited quantities into the hands of actual settlers. Your strong point is cheap land. Every acre you pass over to speculators to be held for an advanced price is a clog on your prosperity.

If you would route the speculators, and offer your lands to actual settlers under the provisions of the homestead act, or at 10 shillings per acre, you would, within eight or ten years, have as dense a population as any agricultural State in this blessed Union.

God grant our legislators, State and national, wisdom to stop the whole system of land appropriation for public and private purposes. Hold every acre, as a sacred trust from Heaven for landless whose needs are their title to it, and who from the proceeds of their industry can and will build roads and make every needed improvement in half the time required under the present system.

AGRICULTURAL STATISTICS OF GREAT BRITAIN.

The following statement, made by the statistical department of the Board of Trade in September, gives the returns of acreage crops and numbers of farm animals:

Extent of land in Great Britain under—

	Wheat.	Barley.	Oats.
	Acres.	*Acres.*	*Acres.*
1866	3,350,394	2,237,329	2,759,923
1867	3,367,876	2,259,164	2,750,487
1868	3,646,260	2,149,201	2,753,240
1868 over 1867	*278,384 or 8.2 per cent.	†109,963 or 4.9 per cent.	*2,753 or 0.1 per cent.
1868 over 1866	*295,866 or 8.8 per cent.	†88,128 or 4.0 per cent.	†6,683 or 0.3 per cent.

Total number of live stock in Great Britain upon June 25.

	Cattle.	Sheep.	Pigs.
1867	4,993,034	28,419,101	2,966,979
1868	5,416,154	30,685,980	2,303,857
1868 over 1867	*423,120 or 8.5 per cent.	*1,766,879 or 6.1 per cent.	†663,122 or 22.3 per cent.

* Increase. † Decrease.

The amount of land in Great Britain under potatoes in 1868 was 539,554 acres, against 492,217 in 1867, and 493,843 in 1866.

The acreage under hops in 1868 was 64,488, against 64,284 in 1867, and 56,578 in 1866.

AGRICULTURAL STATISTICS OF IRELAND.

Mr. Donnelly, the Irish Registrar General, has made his usual annual report, from which we learn that the total acreage under all crops in 1868 was 5,547,335 acres; ditto, 1867, was 5,459,702 acres, showing an increase in the extent under crops in 1868 of 87,633 acres, which is thus accounted for: Compared with 1867 wheat increased by 25,757 acres, oats by 39,408, barley by 15,199, and bere and rye by 304 acres; beans and peas decreased by 3,582 acres; potatoes increased by 33,072 acres, mangel and beetroot by 270, cabbage by 8,753, and carrots, parsnips, and other green crops by 1,102 acres; meadow and clover increased by 33,462 acres. The crops which decreased in area in 1868 were turnips, by 15,662 acres; vetches and rape, by 3,638; and flax, by 46,811 acres; the net increase in the acreage under crops in 1868 being 87,633 acres.

The total estimated value of horses, cattle, sheep, and pigs this year was £34,098,742, being a decrease of £1,058,477, compared with 1867.

SALES OF SHORT-HORN CATTLE IN ENGLAND.

At the recent Killhow short-horn sale 66 head brought an aggregate of £4,445 14*s.*, or an average of £67 7*s.* 9*d.* Polly Gwynne, 15 years old, brought 28*gs*; Moss Rose, 10 years old, was started at 100*gs.*, and sold at 400*gs.* This cow has now been sold four times at 260*gs.* as a calf, and then successively at 245*gs.*, 230*gs.*, and now at 400*gs.* Turk's Darling brought 75*gs.*; Duchess Gwynne 180*gs.*; Princess 2d 300*gs.*; Princess 3d 330*gs*, (bought for 71*gs.* last year;) Oxford Lily 85*gs.*; Countess Gwynne 240*gs.* The average for 56 cows was £67 16*s.* 9*d.* Of the bulls, Royal Cambridge, three years old, brought 240*gs.*; Royal Cumberland, seven months old, 160*gs.*; Fop, 65*gs.* The ten bulls averaged £64 13*s.* 7*d.*

At the Scaleby sale 71 animals averaged £30 each. Of the cows, Elvira brought the highest price, 48*gs.* The 14 bulls averaged just 30*gs.*; the 14th Duke of Oxford bringing 71*gs.*, Duke de Morny 55*gs.*, and Duke of Edinburgh 40*gs.*

At the Beaumont sale 29 animals were sold; the 16 cows and heifers averaging £36 16*s.* 4*d.*; Royal Charmer 3d, seven months old, bringing 115*gs.*, and Duchess of Lancaster 110*gs.* The bulls ranged from 8*gs.* to 50*gs.*; Golden Duke selling at the highest figures; Snow Ball, a calf, 41*gs.*; Sir William Gwynne 46*gs.*, and Fawsley Baronet 38*gs.*

At Lillingstone Dayrell, Buckingham, 45 head of Mr. Roberts' herd of short-horns brought an average of £28 12*s* for 33 cows, and £30 17*s.* for 12 bulls.

From the Grendon herd 36 cows averaged £22 12*s.* 8*d.*, and 17 bulls £34 1*s.* 3*d.* The highest figure per cow was 34*gs.*, and per bull 80*gs.*

At Gordon Castle Farm 14 bull calves sold at an average of £22 1*s.*, and eight cows and heifers at £21 15*s.* 6*d.*

SALES OF SHEEP IN ENGLAND.

At the ram sales at the Worcester fair, 15 Shropshire Down rams sold at from £6 6*s.* to £23 2*s.* Another lot of 7 pure-bred Shropshire rams brought from £5 15*s.* 6*d* to 9*gs.* And of a lot of 8 Shropshire shearling rams the highest price realized was 17*gs.*; lowest, 8½*gs.*; the average being a little over £13. Twelve shearling Leicester rams brought from £2 12*s.* 6*d.* to £3; 20 Leceister rams averaged £6 16*s.* 6*d.*, and two other lots ranged from 33*s.* to 35*s.* Shear-

ling Cotswold lambs sold at £5 15*s.* 6*d.*; 15 Cotswolds brought 7*gs.* each; 6 gray-faced ditto brought 6*gs.*; 35 Cotswold rams averaged £6; 12 Oxford rams averaged £10 each, the highest bringing 16*gs.*; lowest, £6 16*s.* 6*d.*; 12 capital rams of the Oxford Down cross brought an average of £6 10*s.* 4*d.*, and 10 Oxford Down rams averaged £9 2*s.*, the higest reaching 14½*gs.*; lowest, 7*gs.*; 8 superior shearling Lincoln rams and two older rams ranged from £5 10*s.* to 13*gs.*; 15 shearling Lincoln rams from £3 7*s.* 6*d.* to £8 5*s.*; and 10 prime cross-bred Lincoln and Cotswold shearlings brought from £3 2*s.* 6*d.* to 5*gs.* each.

At the Partney fair sales the Huttoft rams (40) reached the highest average of any at the fair, £11 13*s.* One sold for £33, one for £29, and another for £27. The Langton Grange sheep, (40,) descended from some of the best sheep in the county, commanded great attention, and averaged £11 6*s.*—one bringing £28, two £25 each, and two £21 each. A lot of 24 sheep averaged £9 16*s.*; one of 17 sheep, £8 13*s.*; another lot averaged £9 5*s.*; and still another, grass fed, about £5.

At the Gordon Castle sale a remarkably fine lot of Leicester and Southdowns were sold. The average price of 100 ewes, sold in lots of 5, was 33*s.* 10*d.*, and the average of 78 gimmers, also sold in lots, was 35*s.* 8*d.*; 58 Leicester rams averaged nearly 82*s.*; 10 Southdown ewes, 33*s.* 6*d.*; 4 Southdown rams, 65*s.*, and 10 Southdown gimmers, 30*s.* 6*d.*

About 37,000 sheep were offered at the Lewes sheep fair on the 21st, the large number being caused principally by the scarcity of food. Prices ranged from 20*s.* to 41*s.* for ewes, and from 14*s.* to 27*s.* 6*d.* for lambs, but it is probable that half were driven away unsold. The following figures will show the ruling of sheep and lambs, and the number offered at this fair, for the past 18 years:

Year.	Number.	Ewes.	Lambs.
1850	28,000	22*s.* to 26*s.*	15*s.* to 20*s.*
1855	30,000	25*s.* to 34*s.*	15*s.* to 25*s.*
1860	30,000	30*s.* to 40*s.*	14*s.* to 30*s.*
1864	24,000	30*s.* to 42*s.*	17*s.* to 32*s.*
1865	16,000	34*s.* to 52*s.*	23*s.* to 40*s.*
1867	29,000	30*s.* to 48*s.*	20*s.* to 32*s.*
1868	37,000	20*s.* to 41*s.*	14*s.* to 27*s.* 6*d.*

EUROPEAN HOP CROPS.

The English hop crop, though not up to the expectation of last June, is still large. The quality, however, is exceedingly various, about one-third being very fine, one-third moderately fine, and the remainder shading down to the lowest and brownest samples. The continental crop will probably be about one-half that of last year, and quite variable in quality, of which 45,000 bales will probably be shipped to English markets under promise of good prices. English dealers also count upon 25,000 bales from the United States. Considering the moderate stocks of old and yearling hops now remaining, there is a prospect of a firm and advancing market.

METEOROLOGY.

[Compiled in the Department of Agriculture, from reports made by the observers of the Smithsonian Institution. Notes on the weather closed October 17. Tables closed Oct. 19.]

SEPTEMBER, 1868.

Table showing the highest and lowest range of the thermometer, (with dates prefixed,) the mean temperature, and amount of rain fall, including melted snow, (in inches and tenths,) for September, 1868, at the places named. Daily observations were made at the hours of 7 a. m. and 2 and 9 p. m.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MAINE.				°		°	°	*In.*
Steuben	Washington	J. D. Parker	6	70	17	36	53.9	7.50
West Waterville	Kennebec	B. F. Wilbur	1	80	18	32	56.7	4.73
Gardiner	....do	R. H. Gardiner	1	74	18	39	56.3	8.24
Standish	Cumberland	John P. Moulton	1	81	30	36	56.9	8.82
Norway	Oxford	Howard D. Smith	1	80	17	34	55.3	.....
Cornish	York	Silas West	1	78	17, 18	36	55.5	8.79
Cornishville	....do	G. W. Guptill	1	79	17	34	58.2	7.13
Averages							56.1	7.54
NEW HAMPSHIRE.								
Stratford	Coos	Branch Brown	12	84	18	30	53.9	6.17
Shelburne	....do	Alfred Colby	1	87	18	24	56 2	.....
Goffstown Centre	Hillsboro'	F. Odell	1	85	18	32	57.5	16.40
Averages							55.9	11.29
VERMONT.								
Lunenburg	Essex	H. A. Cutting	12	80	18	25	55.0	6.08
North Craftsbury	Orleans	Rev. E. P. Wild	12	80	22	29	52.2	5.65
Randolph	Orange	Chas. S. Paine	13	86	17, 18	30	57.0	.....
Woodstock	Windsor	Doton & Miller	11	76	22	30	53.8	.....
West Charlotte	Chittenden	M. E. Wing	13	88	17, 22	36	61.2	11.00
Middlebury	Addison	H. A. Sheldon	13	79	17, 22	38	56.6	4.99
Averages							56.0	6.93
MASSACHUSETTS.								
Kingston	Plymouth	G. S. Newcomb	1	90	18, 22	43	63.3	4.71
Topsfield	Essex	S. A. Merriam	1	84	17, 18	34	58.5	9.01
Lawrence	....do	John Fallon	11	76	18	38	56.6	13.42
Georgetown	....do	S. A. Nelson	1	87	18	38	59.0	9.25
Milton	Norfolk	Rev. A. K. Teele	1	87	18	37	57.8	7.54
Cambridge	Middlesex	Rev. J. B. Perry	13, 18	86	18	39	62.1	.....
North Billerica	....do.	Rev. E. Nason	1	82	18, 22	34	59.7	.....
New Bedford	Bristol	Samuel Rodman	1	83	17	44	62.5	5.71
Worcester	Worcester	A. E. Walker	1	80	18	40	59.8	8.60
.....	....do	Jno. G. Metcalf, M. D	1	80	18	36	59.1	7.30

Table showing the range of the thermometer, &c., for September—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
MASS.—Continued.				°		°	°	*In.*
Amherst	Hampshire	Prof. E. S. Snell	1	80	18	36	59.5	10.63
Williams College	Berkshire	Prof. A. Hopkins	11	77	18, 22	36	58.4	6.50
Hinsdale	....do	Rev. E. Dewhurst	11, 12, 13	75	17	38	56.5	10.30
Averages							59.4	8.45
RHODE ISLAND.								
Newport	Newport	Wm. H. Crandall	12	82	18, 30	48	63.7	4.20
CONNECTICUT.								
Pomfret	Windham	Rev. D. Hunt	1	79	17	40	58.5	8.67
Columbia	Tolland	Wm. H. Yeomans	1	84	18	37	63.4	.....
Middletown	Middlesex	Prof. John Johnston	13	84	18	40	61.6	10.49
Colebrook	Litchfield	Charlotte Rockwell	13	82	18	34	59.0	.....
Waterbury	New Haven	Rev. R. G. Williams	13	82	30	34	59.6	12.28
Averages							60.4	10.48
NEW YORK.								
Moriches	Suffolk	E. A. Smith & daugh's	1	94	18	44	68.3	8.03
Troy	Rensselaer	Jno. W. Heimstreet	13	81	22	40	60.9	8.48
Garrison's	Putnam	Thomas B. Arden	12	84	{17, 18, 22, 30}	43	62.0	10.30
Throg's Neck	Westchester	Miss E. Morris	13	88	17	46	65.6	.....
Deaf and Dumb Inst.	New York	Prof. O. W. Morris	12, 13	85	17	48	64.4	9.60
Columbia College	....do	Prof. Chas. A. Joy	13	86	17	48	65.0	8.81
Flatbush	King's	Eli T. Mack	13	88	17	46	65.1	5.99
Minaville	Montgomery	Prof. J. W. Bussing	11, 12	78	22	38	57.6	6.26
Gouverneur	St. Lawrence	C. H. Russell	1, 2, 3	72	17	33	54.3	3.59
North Hammond	....do	C. A. Wooster	12	90	17	40	61.1	5.60
Houseville	Lewis	Walter D. Yale	11, 12	81	21	38	56.4	5.35
South Trenton	Oneida	Storrs Barrows	1	84	22, 29	42	59.5	7.15
Cazenovia	Madison	Prof. Wm. Soule	12	82	21	37	56.9	.....
Oneida	....do	S. Spooner, M. D	12	79	17	42	60.0	10.70
Depauville	Jefferson	Henry Haas	11	82	22	34	57.3	4.45
Oswego	Oswego	Wm. S. Malcolm	3, 10, 11	73	22	43	58.1	4.71
Palermo	....do	E. B. Bartlett	10, 11	81	21	36	57.7	4.10
North Volney	....do	J. M. Patrick	12	82	21	39	58.3	.....
Nichols	Tioga	Robert Howell	12	87	18	36	59.4	.....
Rochester	Monroe	H. W. Mathews	11	78	21	42	58.4	7.51
Little Genesee	Allegany	Daniel Edwards	2, 12	78	19	35	59.6	2.95
Suspension Bridge	Niagara	W. M. Jones	12	85	17	40	60.7	3.75
Buffalo	Erie	Wm. Ives	2	87	21	38	59.5	5.06
Averages							60.3	6.44
NEW JERSEY.								
Paterson	Passaic	Wm. Brooks	11	90	18	42	63.2	7.71
Newark	Essex	W. A. Whitehead	13	86	18	41	63.9	8.96
New Brunswick	Middlesex	Geo. H. Cook	12, 13	87	19	43	64.5	7.99
Trenton	Mercer	E. R. Cook	13	86	18	48	68.2	7.25
Moorestown	Burlington	Thos. J. Beans	12	88	19	45	65.3	8.27
Elwood	Atlantic	Joseph S. Fritts	11	90	18	39	62.2	.....
Rio Grande	Cape May	Jerusha R. Palmer	6, 23	93	18	42	69.3	5.13
Dover	Morris	Howard Shriver	12, 13	84	19, 30	41	63.1	10.85
Newfield	Gloucester	E. D. Couch	13	95	30	40	66.9	.....
Greenwich	Cumberland	R. C. Sheppard	12	86	18, 19, 30	47	67.2	7.79

Table showing the range of the thermometer, &c., for September—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
NEW JERSEY— Con.				°		°	°	*In.*
Vineland	Cumberland	John Ingram, M. D.	13	96	18	44	68.2	5.45
Averages							65.6	7.71
PENNSYLVANIA.								
Nyces	Pike	John Grathwohl	12	80	17	30	58.0	4.90
Fallsington	Bucks	Eben'r Hance	12, 13	87	18	46	66.0	6.80
Philadelphia	Philadelphia	Prof. J. A. Kirkpatrick	12	87	17	49	67.9	8.01
Germantown	do	Thomas Meehan	13	90	28	43	65.7	.....
Horsham	Montgomery	Miss Anna Spencer	12	85	18	44	64.1	8.40
Plymouth Meeting	do	M. H. Corson	12	86	18, 19	24	65.1	.....
Byberry	Wayne	Theodore Day	12	84	18, 19	30	56.6	.....
Whitehall	Lehigh	Edward Kohler	12	84	18, 19	35	63.6	.....
Factoryville	Wyoming	R. Sisson	12	85	18	32	58.7	4.50
Reading	Berks	J. Heyl Raser	12	84	18	40	63.9	.....
West Chester	Chester	Geo. Martin, M. D.	11, 12, 13	82	18	48	62.3	8.24
Harrisburg	Dauphin	John Heisely, M. D.	12	85	18, 19	47	65.1	5.58
Fountain Dale	Adams	S. C. Walker	11, 12	82	19	43	62.8	6.86
Tioga	Tioga	E. T. Bentley	12	90	17, 19	38	62.5	7.90
Lewisburg	Union	Prof. C. S. James	12	84	30	38	60.7	5.71
Ickesburg	Perry	Wm. E. Baker	12	84	18	35	61.9	4.86
Grampian Hills	Clearfield	Elisha Fenton	2	81	18	30	56.6	6.36
Johnstown	Cambria	David Peelor	2	76	18	33	57.3	10.92
Franklin	Venango	Rev. M. A. Tolman	12	81	18	35	59.2	4.88
Connellsville	Fayette	John Taylor	2, 13	80	18	35	61.4	.....
New Castle	Lawrence	E. M. McConnell	11	82	18	32	61.8	.....
Beaver	Beaver	Rev. R. T. Taylor	12	79	18	43	60.8	2.00
Canonsburg	Washington	Rev. W. Smith, D. D	12	84	18	37	61.4	7.96
Averages							61.9	6.53
MARYLAND.								
Woodlawn	Cecil	Jas. O. McCormick	13	90	18	44	66.0	8.13
Annapolis	Anne Arundel	Wm. R. Goodman	10, 11	86	30	49	69.7	6.34
St. Inigoes	St. Mary's	Rev. J. Stephenson	12	90	17	52	70.3	6.15
Emmittsburg	Frederick	Eli Smith	12	86	17	42	64.1	.....
Mt. St. Mary's Coll.	do	Prof. C. H. Jourdan	12	83	17, 18	44	62.2	7.78
Averages							66.5	7.10
VIRGINIA.								
Surry C. H.	Surry	B. W. Jones	1, 13	93	17, 30	50	74.1	.....
Mt. Solon	Augusta	J. T. Clarke, M. D.	27	86	25	32	59.6	4.50
Lynchburg	Bedford	C. I. Merriwether	11	84	18	47	69.1	.....
Snowville	Pulaski	J. W. Stalmaker	11	85	18	36	63.8	12.60
Wytheville	Wythe	Rev. Jas. A. Brown.	11	84	18	36	64.0	4.27
Deaf, Dumb, and Blind Inst.	Augusta	J. C. Covell	12	84	18, 19	45	66.8	0.68
Averages							66.2	5.51
WEST VIRGINIA.								
Romney	Hampshire	W. H. McDowell	11	86	18	38	63.5	.....
White Day	Monongalia	W. H. Sharp, M. D.	12	86	18	40	68.5	.....
Weston	Lewis	Benjamin Owen	12	85	18, 19	40	63.8	.....
Averages							65.3	.....

Table showing the range of the thermometer, &c., for September—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
NORTH CAROLINA.				°		°	°	*In.*
Kenansville	Duplin	Prof. N. B. Webster	13	96	30	46	75.2	1.41
Goldsoro'	Wayne	E. W. Adams, A. M.	2	96	30	51	75.2	0.92
Oxford	Granville	W. R. Hicks, M. D.	2, 13	88	30	44	71.4	2.95
Albemarle	Stanley	F. J. Krow	1	90	18	42	71.0	7.29
Statesville	Iredell	Thos. A. Alison	1	85	30	41	56.9	3.69
Asheville	Buncombe	E. I. Aston	8, 9, 12	83	30	42	66.7	.....
Averages							69.4	3.25
SOUTH CAROLINA.								
Aiken	Barnwell	John H. Cornish	1, 13, 23, 24	87	18	50	73.1	4.04
Gowdysville	Union	Charles Petty	12	89	18, 30	59	72.8	.....
Averages							73.0	4.04
GEORGIA.								
Atlanta	Fulton	F. Deckner & Son	1	87	18, 19	48	70.1	3.84
ALABAMA.								
Opelika	Lee	J. H. Shields	13	91	18	54	74.9	4.59
Carlowville	Dallas	H. L. Alison, M. D.	16	91	26	56	76.3	6.21
Moulton	Lawrence	Thos. M. Peters, A. M.	11	86	26	47	69.0	5.27
Greene Springs	Hale	H. Tutwiler	1	89	26	51	73.7	3.67
Havana	do.	S. K. Jennings, M. D.	1, 11	87	26, 27	52	72.6	4.98
Fish River	Baldwin	W. J. Van Kirk	13, 15	89	25	63	79.4	6.20
Averages							74.3	5.15
FLORIDA.								
Jacksonville	Duval	A. S. Baldwin	24, 25	94	18	62	81.2	6.15
TEXAS.								
Gilmer	Upshur	J. M. Glasco	8	98	26	48	74.6	5.51
Houston	Harris	Miss E. Baxter	9, 10, 11, 12	82	24	65	73.6	.....
Columbia	Brazoria	Hennell Stevens	12	97	26	59	78.5	2.50
Waco	McLellan	Edw. Merrill, M. D.	20	96	23	53	77.0	2.80
Austin	Travis	J. Van Nostrand	12, 22	94	23	53	77.4	1.72
Averages							76.2	3.13
LOUISIANA.								
Benton	Bossier	J. H. Carter	8	89	26	50	75.0	.....
New Orleans	New Orleans	Robt. W. Foster	22, 24	89	18	72	.....	.....
MISSISSIPPI.								
Grenada	Yalabusha	Albert Moore	7, 8	88	26	44	72.9	.....
Brookhaven	Lawrence	T. J. R. Keenan	10	92	26	53	77.0	.....
Natchez	Adams	Wm. McCary	11, 12	88	25, 27	55	73.8	3.50
Averages							74.6	3.50
TENNESSEE.								
Elizabethton	Carter	Charles H. Lewis	11	89	13	42	67.2	.....
Tusculum College	Green	S. S. and Rev. W. S. Doak.	11	91	18, 19, 30	46	68.8	5.15
Austin	Wilson	P. B. Calhoun	2, 8, 9	86	26	44	68.7	10.20
Clarksville	Montgomery	Prof. W. M. Stewart	8	87	25	45	65.8	3.80
Memphis	Shelby	Edw. Goldsmith	7	95	24	51	71.7	9.31
Averages							68.4	7.12

Table showing the range of the thermometer, &c., for September—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
KENTUCKY.				°		°	°	*In.*
Chilesburg	Fayette	Sam'l D. Martin	9	86	26	36	63.3	8.63
Lexington	....do	S. R. Williams	8	84	17, 18, 26	42	63.6	7.81
Danville	Boyle	O. Beatty	15	90	17	48	68.8	9.75
Louisville	Jefferson	Mrs. L. Young	8	87	26	38	65.4	5.57
Clinton	Hickman	Rev. T. H. Cleland	8	88	26	43	66.2	5.89
Averages							65.5	7.53
OHIO.								
New Lisbon	Columbiana	J. F. Benner	11	85	18	34	63.0	2.38
Steubenville	Jefferson	Jos. B. Doyle	2, 12	78	18	43	64.1	.....
Painesville	Lake	E. J. Ferris	12	78	17, 21	44	59.3	7.75
Milnersville	Guernsey	Rev. D. Thompson	1	85	18	36	59.3	5.33
Cleveland	Cuyahoga	Mr. & Mrs. G. A. Hyde	12, 15	79	17, 18	43	59.7	4.72
Wooster	Wayne	Martin Winger	1	87	18	38	63.7	3.58
Smithville	....do	Wm. Hoover	14	86	17	38	62.4	.....
Kelley's Island	Erie	Geo. C. Huntington	10, 12	83	25	47	63.9	3.29
Sandusky	....do	Thomas Neill	10	78	17	40	57.6	3.20
Norwalk	Huron	Rev. A. Newton	3	78	17, 26	42	59.6	2.17
North Fairfield	....do	O. Burras	{3, 10, 11 / 12, 15}	78	26	42	60.6	2.71
Westerville	Franklin	Prof. Jno. Haywood	3	80	26	42	.....	5.72
Marion	Marion	H. A. True, M. D	3, 8	78	17	36	59.0	3.57
Hillsboro'	Highland	J. McD. Mathews	8	78	17	40	60.2	8.89
Toledo	Lucas	J. B. Trembly, M. D	11, 12	82	17	36	59.9	2.50
Kenton	Hardin	C. H. Smith, M. D	1	80	18	46	63.9	8.19
Urbana University	Champaign	M. G. Williams	8	81	26	37	60.5	3.81
Bethel	Clermont	Geo. W. Crane	8	85	26	38	61.6	6.75
Cincinnati	Hamilton	Geo. W. Harper	8	82	17	43	62.3	7.19
Do	....do	R. C. Phillips	4, 8, 15	84	26	44	67.7	8.21
College Hill	....do	John W. Hammitt	8	88	17	40	63.1	5.88
Jacksonburg	Butler	J. B. Owsley, M. D	8	81	17	41	62.5	6.69
Averages							61.6	5.13
MICHIGAN.								
Monroe City	Monroe	Miss H. I. Whelpley	11	72	21, 23	36	53.2	3.55
State Agr'l Col	Ingham	Prof. R. C. Kedzie	10	83	17, 21	32	58.8	2.95
Litchfield	Hillsdale	R. Bullard	12	81	21, 25	36	57.6	4.19
Grand Rapids	Kent	E. S. Holmes, D. D. S	12	85	21	34	57.8	.....
Northport	Leelenaw	Rev. Geo. N. Smith	10	74	20	32	55.2	.....
Holland	Ottawa	L. H. Streng	10, 11	81	21	34	57.4	5.66
Otsego	Allegan	Milton Chase, M. D	10	84	21	32	57.1	.....
Copper Falls	Keweenaw	Dr. S. H. Whittlesey	7	64	24	27	46.3	2.29
Ontonagon	Ontonagon	Edwin Ellis, M. D	8	66	{20, 21, / 23, 24}	36	53.9	.....
Coldwater	Branch	N. L. Southworth	11	80	21	33	57.2	4.25
Averages							55.5	3.82
INDIANA.								
Aurora	Dearborn	Geo. Sutton, M. D	8	90	26	39	64.1	6.08
Vevay	Switzerland	Chas. G. Boerner	8	86	17, 26	44	65.8	6.72
Muncie	Delaware	G. W. H. Kemper, M. D	8	83	26	34	61.6	6.30
Columbia City	Whitley	{Dr. F. and Miss L. McCoy.}	11	86	17, 19, 28	34	56.3	6.63
Jalapa	Grant	Albert C. Irwin	11	81	25	41	60.4	6.50
Indianapolis	Marion	W. J. Elstern, M. D	8	81	26	36	59.7	5.31
Rensselaer	Jasper	Dr. J. H. Loughridge	12	82	17	38	62.9	11.37

Table showing the range of the thermometer, &c., for September—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
INDIANA—Con.				°		°	°	*In.*
New Harmony	Posey	John Chappellsmith.	8	85	25	46	67.5	8.49
Averages							62.3	7.18
ILLINOIS.								
Chicago	Cook	J. G. Langguth, jr.	12	84	23	43	63.2	7.08
Near Chicago	do	Samuel Brookes	2	90	16, 17	38	61.3	.....
Ridge Farm	Vermillion	B. C. Williams. M. D.	10, 11	84	17, 23	40	61.3	5.90
Marengo	McHenry	O. P. & F. Rogers	12	83	17	30	55.5	6.67
Golconda	Pope	Wm. V. Eldredge	10	97	17	40	72.6	4.70
Aurora	Kane	A. & E. D. Spaulding	12	80	23	32	56.7	5.47
Belvidere	Boone	G. B. Moss	2, 12	78	21	38	55.8	7.16
Ottawa	La Salle	Mrs. E. H. Merwin	2	83	23	36	58.3	3.48
Winnebago	Winnebago	J. W. & Miss Tolman.	10	81	23	31	58.9	5.23
Rochelle	Ogle	Daniel Carey	10, 12	82	23	31	56.5	.....
Wyanet	Bureau	E. S. & Miss Phelps	10	86	23	30	59.5	4.65
Tiskilwa	do	Verry Aldrich	10	87	23	33	58.5	.....
Hennepin	Putnam	Smiley Shepherd	10	86	23	34	59.0	.....
Elmira	Stark	O. A. Blanchard	10	82	23	32	58.2	2.61
Peoria	Peoria	Frederick Brendel	12	83	17	38	61.3	4.46
Springfield	Sangamon	G. M. Brinkerhoff	14	89	16, 17, 18, 24	40	59.4	.....
Dubois	Washington	Wm. C. Spencer	12	84	26	30	56.8	13.60
Waterloo	Monroe	H. Künster	2, 11, 12	82	23	43	65.6	.....
South Pass	Union	H. C. Freeman	8	93	23, 26	43	67.0	.....
Galesburg	Knox	Prof. W. Livingston.	10	81	23	33	59.0	5.28
Manchester	Scott	Dr. J. & C. W. Grant	11	85	16	41	63.3	3.89
Mount Sterling	Brown	Rev. A. Duncan.	10	90	23	38	64.3	.....
Andalusia	Rock Island	E. H. Bowman, M. D	10	81	23	33	59.8	.....
Augusta	Hancock	S. B. Mead, M. D.	11	83	16, 17, 23	42	62.8	4.29
Paris	Edgar	C. Levings	12	84	17	46	64.0	.....
Averages							60.7	5.63
WISCONSIN.								
Manitowoc	Manitowoc	Jacob Lüps	10, 12	77	21	34	55.3	3.72
Plymouth	Sheboygan	G. Moeller	10	78	21	27	53.1	3.60
Milwaukee	Milwaukee	I. A. Lapham, LL.D	8, 12	79	21	33	56.4	0.90
Geneva	Walworth	Wm. H. Whiting	10	81	21, 23	32	56.9	4.21
Waupacca	Waupacca	H. C. Mead	1	75	23	35	54.3	.....
Embarrass	do	E. Everett Breed	1	74	20	31	52.0	5.06
Edgerton	Rock	Henry J. Shints	9,11,12,13	89	23	30	57.2	2.13
Bayfield	La Pointe	Andrew Tate	5	74	25	38	49.2	.....
Averages							54.3	3.27
MINNESOTA.								
St. Paul	Ramsey	Rev. A. B. Paterson	9, 11	72	25	23, 25	51.5	2.88
Minneapolis	Hennepin	Wm. Cheney	4	72	25	18	50.5	2.78
Sibley	Sibley	C. W. & C. E. Woodbury.	11	79	25	34	46.6	2.96
New Ulm	Brown	Charles Roos	11	80	25	22	56.9	3.89
Sauk Centre	Stearns	S. Bloomfield	7	73	23, 25		48.9	3.44
Averages							50.9	3.19
IOWA.								
Dubuque	Dubuque	Asa Horr, M. D	8	78	25	38	57.1	5.0

Table showing the range of the thermometer, &c., for September—Continued.

Stations, &c.	Counties.	Observers.	Date.	Max. temp.	Date.	Min. temp.	Mean temp.	Rain fall.
IOWA—Continued.				°		°	°	*In.*
Monticello	Jones	M. M. Moulton	2,8,10,11	78	17, 23	34	55.1	6.72
Bowen's Prairie	..do	Sam'l Woodworth	11	78	23	32	54.5	7.20
Fort Madison	Lee	Dan'l McCready	11	87	23	29	60.1	2.05
Guttenberg	Clayton	Jas. P. Dickerson	1, 11	80	23	26	53.1	.....
Mount Vernon	Linn	Prof. A. Collins	8	82	23	30	56.6	.....
State University	Johnson	T. S. Parvin, A. M	1, 10	81	17, 23	32	58.8	5.17
Independence	Buchanan	Geo. Wayne, M. D	11	85	23	32	55.3	6.00
Near Independence	....do	Mrs. D. B. Wheaton	1	83	22, 23	29	54.8	8.60
Waterloo	Black Hawk	T. Steed	11	81	22	32	54.8	.....
Marble Rock	Floyd	H. Wadey	11	76	24	33	54.7	.....
Algona	Kossuth	Ph. Dorweiler	11	77	25	30	52.2	.....
Do	....do	James H. Warren	11	79	22	31	52.0	.....
Fort Dodge	Webster	C. N. Jorgensen	11	82	23, 24, 25	33	53.8	1.85
Boonesboro'	Boone	E. Babcock	11	82	17, 23	33	56.6	3.55
Rolfe	Pocahontas	Oscar I. Strong	11	82	23, 24	32	53.5	4.89
Fontanelle	Adair.	A. F. Bryant	11	86	22, 23	35	57.2	5.63
Logan	Harrison	Jacob F. Stern	11	83	23	31	54.9	4.20
Woodbine	....do	David R. Witter	11	86	23	28	54.8	.....
Averages							55.3	5.08
MISSOURI.								
St. Louis University	St. Louis	Rev. F. H. Stuntebeck	11	83	24	44	64.7	5.43
Allenton	....do	A. Fendler	2	85	17	35	62.5	7.19
Hematite	Jefferson	John M. Smith	12	87	17	35	64.4	7.05
Canton	Lewis	George P. Ray	11	87	23	29	62.3	4.64
Rolla	Phelps	Homer Ruggles	8	83	17	42	64.1	4.85
Hermitage	Hickory	Miss Belle Moore	5	92	17	37	65.6	6.12
Harrisonville	Cass	John Christian	11	86	23	40	61.9	6.63
Oregon	Holt	William Kaucher	11	93	23	35	61.1	2.87
Warrensburg	Johnson	J. E. Pollock	11	90	23	35	65.1	2.24
Averages							63.4	5.22
KANSAS.								
Leavenworth	Leavenworth	J. Stayman, M. D	5, 11	90	23	26	60.6	2.72
Baxter Springs	Cherokee	Ingraham & Hyland	11	95	17, 23, 24	46	69.8	13.65
Atchison	Atchison	Dr. H. B. & Miss Horn	5	91	23	30	61.8	7.30
State University	Lawrence	Prof. H. F. Snow	5	93	23	29	62.4	4.29
Holton	Jackson	Dr. James Watters	11	93	17	32	62.1	.....
State Agricult'l Coll.	Riley	Prof. B. F. Mudge	10	87	23	34	60.7	5.72
Council Grove	Morris	A. Woodworth, M.D.	5, 11	88	23	33	65.6	10.25
Averages							63.3	7.32
NEBRASKA.								
Elkhorn	Washington	John S. Bowen	11	86	22	36	56.9	.....
De Soto	....do	Charles Seltz	11	86	22	33	54.5	3.27
Fontanelle	....do	Henry Gibson	11	90	23	30	57.7	.....
Bellevue	Sarpy	Mrs. E. E. Caldwell	11	85	23	36	59.1	2.20
Glendale	Cass	Dr. A. L. & Miss Child	11	86	22	30	57.3	2.35
Nebraska City	Otoe	Prof. P. Zahner	11	84	23	41	63.6	.....
Averages							52.2	2.61

NOTES ON THE WEATHER.—SEPTEMBER, 1868.

West Waterville, Me.—Frost and ice 18th; robins left 29th; temperature 3.71° below the average of September for four years; rain fall 2.25 inches above the average for four years.

Gardiner, Me.—A cold, wet month. September average for 32 years is 58.44°; this September nearly 2½° below that; the rain-fall more than five inches above the September average of 32 years (3 22 inches.) The greatest previous September rainfall was 5 76 inches, in 1848.

Norway, Me.—An uncommonly wet and cold September; white frosts on 17th, 18th, 22d, and 30th.

Lisbon, Me.—Corn good and generally matured by 15th; potatoes light yield, but good; wet weather caused rot. Frost on 17th, 18th, and 19th. Rain-fall 7.93 inches.

Cornishville, Me.—First frost 17th; Indian corn heavy; potatoes yield well but rot badly; fall feed very good. The September average temperature for 40 years 50°; this September 58 22°.

Antrim, N. H.—Sharp frosts 17th, 18th, and 22d; that of morning of 17th very severe.

Stratford, N. H.—Light frosts 15th; hard frosts and ice 17th and 18th. Considerable rain, but streams low.

Goffstown Centre, N. H.—Remarkably wet month; 18 rainy days; rain-fall 16.4 inches, of which 4.3 inches fell in 24 hours. Potatoes rotting in consequence. Frosts not very severe.

Lunenburg, Vt.—First frost, very severe, 17th; hard frost 18th and 19th; slight ones 21st and 22d. Month very wet, roads muddy, streams high, aurora visible every clear night.

Randolph, Vt.—More rain this month than in any month for three years.

Woodstock, Vt.—Sharp frost on 17th, ice quarter inch thick; and another on 18th.

West Charlotte, Vt.—Back from Lake Champlain heavy frosts on 16th, 17th, 18th, 19th, and 20th, but they did not reach the bays.

Topsfield, Mass.—Heavy hoar frost 18th; springs full.

New Bedford, Mass.—Linden and silver poplar leaves falling 3d; slight hoar frost 17th. Elm and other trees losing foliage.

Lunenburg, Mass.—Coldest September since 1860; great amount of rain, and potatoes rotting badly.

Pomfret, Conn.—First frosts 17th, 18th, and 19th, none killing. Much rain and cloudy weather this month.

Waterbury, Conn.—First frost 18th, severe; others 19th and 30th, slight. Much rain in September.

Moriches, N. Y.—First frost 18th. The excess of rain this month contrary to the saying that "a wet May makes a dry September."

Troy, N. Y.—Fully clouded, 13 days; entirely clear, none. Mean temperature 1.12° below September for 12 years; rain-fall 5.25 inches more than September average of 12 years, and is the greatest ever registered here since 1826.

Garrison's, N. Y.—Cold and wet September, but frost on 18th; did not injure crops. Pasture abundant.

North Hammond, N. Y.—Frost 17th and 18th. Frequent showers and but little frost during September.

Cazenovia, N. Y.—Hail on 17th; frosts on 17th, 18th, and 22d.

Palermo, N. Y.—Slight frosts 17th, 18th, 20th, and 21st, but vegetation green as in summer.

Nichols, N. Y.—Severe frost 17th, destroyed much buckwheat and vegetation generally; hard frost, fog, and rain, 18th; light frost and fog 19th.

Buffalo, N. Y.—Isabella and Ontario grapes leafed May 20, blossomed June 25, first ripened September 25.

Newark, N. J.—The maximum (86°) on 13th was exceeded in only 8 of 25 preceding Septembers, and the minimum (41.25°) on 18th was above 14 of the 25. No frost in this city.

Elwood, N. J.—First frost 18th, harmless. Time between spring and fall frosts, 137 days.

Rio Grande, N. J.—Slight frosts 18th and 19th.

Dover, N. J.—First and second frosts nights of 17th and 18th, killing vines and searing corn badly.

Greenwich, N. J.—First frost 18th; first 14 days of September warm; 15 days rainy; not one wholly clear day in the month.

Vineland, N. J.—Light frosts 18th and 19th; the last seared sweet potato vines slightly.

Fallsington, Pa.—Light frosts 18th, 19th, and 30th; fine weather.

Horsham, Pa.—White frosts in low places on 17th, 18th, and 19th; no damage.

Dyberry, Pa.—Frosts 17th, 18th, 19th, killing vegetation; month wet.

Factoryville, Pa.—First frost and ice 17th; frosts 18th, 19th; rain 20th.

West Chester, Pa.—Farmers cutting corn 17th; frosts 18th, 19th.

Harrisburg, Pa.—Rain 1st, 3d, 7th, 14th, 20th, 22d, 23d, 24th, and 26th, with thunder 9th, 10th, 12th, and 25th, 13 days out of 30.

Fountain Dale, Pa.—First frosts 17th, 18th, and 19th. Month unusually wet, retarding farm work. Forest leaves green, except hickory, which shows yellow.

Tioga, Pa.—Severe frosts, injuring buckwheat, corn, and garden vegetables, 17th and 19th. Month very wet and unfavorable for gathering crops.

Ickesburg, Pa.—First frost, very light, 17th; severe frost 18th. From frost to frost, April 27th to September 17th, 142 days.

Johnstown, Pa.—Slight frost on 18th; was very severe in Indiana county and on the mountain.

Franklin, Pa.—Frost on hill tops and high lands 18th; forest leaves begin to color.

Connellsville, Pa.—On 18th very heavy white frost; grass and plantain leaves frozen stiff; it was followed by fog.

Woodlawn, Md.—Frosts killing vegetables on low grounds 17th, 18th, and 19th.

Emmittsburg, Md.—First frost at Mount St. Mary's on 18th.

Surry C. H., Va.—Last appearance of firefly, 10th; of martins, 14th; of whippoorwill, 19th. Indian-summery, and katydids singing in daytime 19th; wild pigeons flying 28th and 29th; frost reported in Isle of Wight county 30th.

Comorn, Va.—Light frosts 18th, 19th, and 30th; a healthy autumn.

Mount Solon, Va—Light frost on 13th; in low places late corn was seared, and grass bitten on mountains.

Snowville, Va.—First frost 18th; tobacco badly bitten in counties south of this. Frost also 19th and 30th.

Wytheville, Va.—Frosts 18th and 19th; the first injured tender plants and seared corn-blades slightly. Weather favorable.

White Day, West Va.—Frosts 17th, 18th, and 30th, and in country around on 18th. Ice formed three miles from here.

Kenansville, N. C.—Lightning and thunder on 4th, 7th, 14th, 16th, and 25th. Very dry and unhealthy. Corn and cotton better than usual

Statesville, N. C.—Light frosts 18th, 19th, and 30th; no damage—early for this section.

Atlanta, Ga.—Lightning and thunder 1st, 2d, 3d, 9th, 10th, 11th, 12th, 13th, and 14th—the last with heavy rain from southwest.

Opelika, Ala.—Mocking-birds resumed singing 4th; cotton-worms appeared on 10th.

Moulton, Ala.—Quite cool 17th, 18th, and 19th; making sorgo molasses 19th; maize corn ripe 24th. Month foggy and damp.

Jacksonville, Fla.—Temperature of September unusually high—about 3° above usual average. The northeast storm of 17th and 18th reduced it below usual range.

New Orleans, La.—Much rain and sultry weather; heat more oppressive than in July; northeast wind of 18th cooled the night.

Clarksville, Tenn.—Cumberland river over the lower bottom fields, for the first time in September since the country was settled.

Clinton, Ky.—First white frost 18th, second 26th, both very slight.

Chilesburg, Ky.—Slight frosts 17th, 18th, 26th, 29th; only tenderest vegetables injured. Corn has ripened well; grapes all gathered.

New Lisbon, Ohio.—First frost 17th; hard frosts 18th, 19th. Pastures as fine as in May.

Marion, Ohio.—First frost 17th; sharp, but did not kill vegetables in town.

Litchfield, Mich.—Heavy frost on 17th; injured buckwheat, potatoes, &c., on low grounds. A very cold month, but vegetation still growing, as but two frosts did any injury.

Otsego, Mich.—Frosts on 15th, 16th, 18th, and 20th; that of 18th nipped corn.

Northport, Mich.—A chilly, wet month; frost of 20th about a month earlier than usual, damaged potatoes and buckwheat some.

Copper Falls, Mich.—On 23d finest auroral display ever seen here; another very fine on 29th.

Ontonagon, Mich.—Light frost 17th; heavy 21st. Snow, one and one-half inches, 22d and 23d. Ground frozen hard on 25th.

Muncie, Ind.—Frosts 17th and 18th, damaging fodder but not the corn.

Indianapolis, Ind.—Frosts on 17th, 18th, 24th, 25th, and 29th, searing the corn.

Chicago, Ill.—First frost, severe, 17th; another, slight, 28th.

Near Chicago, Ill.—Slight frost 16th; severe 17th. The month has been very chilly, with much rain.

Ridge Farm, Ill.—Frost 17th, searing corn-blades, and damaging late corn.

Marengo, Ill.—Light frosts 13th, 16th; heavy 17th.

Belvidere, Ill.—Severe frost with ice night of 16th; last previous frost May 19th—120 days.

Ottawa, Ill.—Rain 2d, 5th, 8th, 11th, 12th, 19th, 29th, and 30th; fog or mist 7th, 24th, 25th, and 26th; frosts 17th, 18th, 21st, and 23d.

Hennepin, Ill.—Moderate temperature and equably distributed rain keep crops growing and ripening finely. The only check was the frost on the 17th.

Dubois, Ill.—Light frosts, in places, 4th and 17th; great rains, 5 inches on 10th, and 4.3 inches on 30th; more rain in September than in any one month for years.

Waterloo, Ill.—On 8th, 10th, and 12th, heaviest rains ever known here; also on 21st and 22d heavy rain all night with lightning and thunder.

Mount Sterling, Ill.—First white frost 16th, others 18th and 23d; some late corn in low places hurt by the latter.

Manitowoc, Wis.—Thunder storms 1st, 2d, 6th, 12th, 14th, 15th, 27th; frost in low places 16th, also, with freezing, 21st. Coldest September in 17 years.

Plymouth, Wis.—First frosts in September, 1861, 27th; 1862, 1st; 1863, 17th; 1864, 27th; (1865, October 2d;) 1866, 21st; 1867, 30th; 1868, 21st; average of eight years, September 22d.

Milwaukee, Wis.—Heavy hoar frosts 16th, 21st, 23d.

Geneva, Wis.—On 29th, sky clear, air calm, a deep, low sound, like the sub-bass of an organ, was heard at 10 a. m. for about an hour, sometimes low and faint, apparently from the west. (Under similar circumstances a like sound was also heard last spring.) It was followed, in a few hours, by clouds from the west, with strong wind at 9 p. m.

Embarrass, Wis.—First frost, slight, 13th; severe 16th, 17th, 21st, 23d, 24th, 25th, and 29th. Month cold and rainy—October weather.

Minneapolis, Minn.—First slight frost 13th; first killing frost 16th; first snow, slight, 22d.

Sibley, Minn.—Slight frost 9th; killing, 16th; snow-squall, 22d.

New Ulm, Minn.—On 11th, at 4 p. m., a tornado going eastward passed seven miles northwest of here, cutting a track through woods and fields, prostrating trees, fences, &c., and in one case moving a stone weighing about three tons several yards. It probably commenced about latitude 44° 20′, and longitude 94° 40′. On same day, at 11 a. m., a very heavy rain and strong wind were experienced in Chicago.

Sauk Centre, Minn.—On 15th, severest frost ever known at this season; icicles formed six inches long. Frosts also on 16th, 19th, 21st, 22d, 23d, 24th, and 28th. Snow flurries on 22d.

Dubuque, Iowa.—Ice in low places 16th; hoar frost 17th and 23d.

Monticello, Iowa.—First frost 16th, six days later than last year. There were 118 days between frosts in 1868, 110 in 1867, 94 in 1866, and 139 in 1865.

Guttenburg, Iowa.—First frost 3d, second 13th, both light; severe, with ice, 17th. Good month for farm work; sorghum soured by frost of 17th.

Independence, Iowa.—Light frosts 3d and 13th; severe 16th and 17th; froze hard 23d; a fine rain, best in a year, 30th.

Waterloo, Iowa.—Slight frost 13th; heavy 15th, 16th, 17th; ground covered with snow 25th—melted in two hours.

Marble Rock, Iowa.—Frost in low places 2d; ice formed 13th and 16th. From 5th to 25th most unpleasant weather known here for the season.

Algona, Iowa.—First frost and ice 16th. Snow and rain 24th. Some late corn and cane injured. The most unpleasant September remembered here.

Boonesboro', Iowa.—White frost 16th, just five months since last frost; heavy frosts 17th and 23d. Coldest September in 14 years.

Rolfe, Iowa.—Heavy frosts 16th and 17th—131 days between frosts. Snow storm 24th.

Woodbine, Iowa.—Light frost on low lands 1st; heavy on 16th, 17th, and 23d.

Allenton, Mo.—First frosts 17th and 18th—did but little injury.

Canton, Mo.—First frost and ice 17th; others 18th and 23d. Wild geese flying 24th. Wild geese and brant remain here all winter.

Rolla, Mo.—First frosts, light, 17th and 23d. Thunder showers 3d, 7th, 8th, 9th, 12th, 19th, 20th, and 30th.

Oregon, Mo.—First frost in low places 13th; heavy, with ice in low places, 17th.

Atchison, Kan.—Very white frost 17th, little injury. Very heavy frost 23d, mercury 27° at daylight.

Council Grove, Kan.—Frost, barely visible, 17th; heavy, with ice, 23d; bland air, like Indian summer, 26th. Much lightning and thunder with every rain in September.

Elkhorn City, Neb.—White frost and thin ice 16th; ground frozen 23d.

Bellevue, Neb.—First frosts, slight, 3d; others 16th and 17th; ice thick as window glass 23d; smoky atmosphere 26th, 27th, 28th.

Glendale, Neb.—First frosts, light, 3d and 13th; hard freeze 16th and 17th; geese flying south 23d; cranes 20th. September cold and unpleasant.